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Determining the Bargaining Unit

ONE of the most important clauses in a union-management agreement is one which indicates the classification of the employees included in the bargaining unit. To show prevailing practices, THE CONFERENCE BOARD has analyzed 112 agreements equally divided among four industries. The industries are: steel, automotive, machinery and textile.

PROCEDURES UNDER NLRA

The National Labor Relations Act was not always helpful in clarifying the question of an appropriate bargaining unit, particularly in the case of supervisory personnel. Oftentimes, in such situations, a conflict developed between two or more unions. Sometimes a state labor department representative or representative of the National Labor Relations Board stepped in to aid in settling disputes between employer and employee representatives. For the most part, the Wagner Act left the determination of the unit to the board which had the power to decide whether, "in order to insure to employees the full benefit of their right to self-organization and to collective bargaining, and otherwise to effectuate the policies of this act, the unit appropriate for the purposes of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof."

In negotiating agreements under the NLRA, the employer was first required to recognize the union as a representative of certain of his employees. If a union did not claim to represent the majority of the employees in a specific bargaining unit, the employer might or might not recognize the union as agent for its members, at his discretion. If an employer recognized a union as the exclusive representative for the employees in a bargaining unit, he did so at his own risk, for a rival union could charge collusion if the recognized union did not in fact represent a majority of the employees. Employers discovered that the safest course was to be certain that the claiming union

actually represented a majority of the employees before extending recognition to the union as the exclusive bargaining agent.

There have been instances where private organizations like the American Arbitration Association have been called in to help determine the bargaining unit and conduct an election. Where, however, two or more unions are involved in a dispute over representation, the employer is sometimes caught in the middle of a jurisdictional dispute.

In 1935, when the National Labor Relations Act was first passed, the section granting the labor board power to determine the appropriate bargaining unit did not set off a large number of jurisdictional controversies because there was a fairly united labor movement. But when the craft-industrial union issue came to the fore with the formation of the CIO, this power of the board became increasingly important. The board has held:

"The appropriate bargaining unit problem, however, extends considerably beyond labor's own family fight; it is also of tremendous importance to employers. Coupled with the majority rule provision, the designation by the labor board of the appropriate bargaining unit may very well determine whether or not the employer is under any duty to bargain collectively with his workers and hence whether or not he is guilty of an unfair labor practice. Suppose, for example, that the labor board designates a plant unit rather than an employee unit. If a majority of the workers in that plant desire to bargain collectively, the employer must do so or be guilty of an unfair labor practice. But suppose the labor board had designated the employer unit rather than the plant unit as the appropriate bargaining unit, and suppose further that no labor organization or organizations could muster a majority of the workers in this large unit, then the employer would be under no obligation to bargain collectively with any of his employees. The reverse of this example would equally change the obligations and liabilities of the employer."

¹This was E. B. McNatt's observation in November, 1941.

Even though there was no disagreement as to the basic unit involved, there was usually much dissension over the "fringe groups"; that is, employees who might reasonably be included or excluded from the bargaining unit. In most instances, the board adhered to the policy of adopting the unit outlined in prior agreements. Under the Wagner Act, the NLRB was generally guided by the basic concept that workers having a substantial mutuality of interest in wages, hours, and working conditions, as revealed by the type of work they performed, should be appropriately grouped in a single unit.¹ In application of this concept, the board considered various factors, some of the more important of which were:

1. Extent and type of organization and the history of collective bargaining among the employees at the plant involved and at other plants of the same employer or other employers in the same industry;
2. Duties, skill, wages, and working conditions of the employees;
3. Desires of the employees;
4. Eligibility of any employees for membership in the union or unions involved;
5. Relationship between the proposed unit or units and the administration and organization of the employer's business.

When two or more unions disagreed upon the scope of the bargaining unit, the board had a complicated element to face. Under these circumstances the board examined claims of the rival unions, considering somewhat the same factors heretofore mentioned: mutuality of interests or problems among the employees, as indicated by common skill required to perform the work; functional coherence and interdependence of the work; method or amount of wage payment²; existence of a labor organization³; and the historical record of labor relations in the industry and between the employer and employees.⁴ If, after weighing carefully all the factors involved, the evidence was not conclusive, the board followed the principle, adopted in 1937, of allowing the employees to decide for themselves what bargaining unit they preferred.⁵

When there were multiple plant or system units in an industry (and this situation arose most frequently in mass-production industries like the automobile, rubber, and steel industries), the board had to decide whether one plant, more than one but less than all plants, or all the plants of a given employer constituted an appropriate bargaining unit.

It is possible for the same international union to have more than one bargaining unit within the same

¹National Labor Relations Board, Tenth Annual Report, 1945, p. 27, footnote 71.

²Bendix Products Co., 1 NLRB 173.

³Chase Brass and Copper Co., 4 NLRB 8.

⁴Biles-Coleman Lumber Co., 4 NLRB 679.

⁵*Quarterly Journal of Economics*, November, 1941, p. 99.

plant or company. For instance, certain semicraft unions will have a bargaining unit of craftsmen and another bargaining unit of production workers in the same plant. This is particularly true of AFL unions and very noticeable where the craft unions have Class A locals for craftsmen and Class B locals for production workers.

The CIO Steelworkers have bargaining units of steelworkers and of clerical workers, each one subject to the same international constitution and often affiliated with the same area council of Steelworkers' locals.

As the tables indicate, there is a considerable variance in bargaining units within the same industry. Certain types of plant production and maintenance personnel are sometimes included in one bargaining unit with production workers and excluded from another. In some instances workers excluded from a unit of production employees have formed bargaining units of their own. There are instances where one company or corporation will deal with a bargaining unit of one or more AFL unions, one or more CIO unions, and one or more independent unions.

UNDER THE TAFT-HARTLEY ACT

The patterns of determining bargaining units have been defined in the Taft-Hartley amendments to the NLRA. The law states that the union has the right to act as the exclusive bargaining agent for all employees in the appropriate bargaining unit. Craft groups may, as a general rule, be set up as separate units unless a majority of the workers in the unit votes against separate craft representation. Professional employees may be set up as separate units unless a majority votes otherwise for inclusion in a larger unit.

Supervisory unions are no longer recognized and have no rights or benefits under the new labor law. Foremen can join a union but it is not imperative for management to recognize a foremen's union or a foreman as a member of a production workers' union. Employers may, however, voluntarily sign a contract with a supervisors' union. There is nothing in the law which prevents excluded employees from organizing into separate unions.

Steel

Bargaining units in the steel industry are of a vertical (industrial union) nature. Many crafts and classifications of employees are included in these units. However, various classifications and crafts are represented by unit union committeemen and stewards. Therefore, a single bargaining unit in a mass production industry like steel may have unit representatives who handle grievances on behalf of a smaller group of workers on a particular operation.

Table 1 deals with bargaining units in twenty-eight steel companies. Fifteen of the companies do not

break down the types of employees by job classifications. This is not unusual, because it would require many pages of the agreement to include all the jobs in the unit. Units are outlined in seniority lists which are not necessarily part of the labor agreement, but are covered by a blanket statement which sometimes indicates that such lists are prepared and available.

Table 1: Collective Bargaining Units and Exclusions in the Steel Industry

Included in Bargaining Unit	CIO	AFL
Total agreements.....	21	7
<i>Production</i>		
Production employees.....	15	1
Turn leaders.....	1	
Technical employees.....	1	
Tool crib employees.....	1	
Hourly paid inspectors.....	1	
Hourly paid working foremen.....	2	
Chemists.....	1	
Metallurgists.....	1	
Supervisors working with tools.....	1	
Machine shop department employees.....	1	
Ammonia department employees.....	1	
Compressor department employees.....	1	
Boiler department employees.....	1	
Operating engineers.....	1	
Assistant operating engineers.....	1	
Electricians and helpers.....	1	
Machinists and helpers.....	1	
Viner operators.....	1	
Leadmen.....	1	
Utility men and utility women.....	1	
Machinists "A", "B", and "C".....	1	
Machinist helpers.....	1	
Machinist apprentices.....	1	
Pneumatic tool repairmen "A", "B", and "C".....	1	
Pneumatic tool repairmen helpers.....	1	
Automotive mechanics, "A", "B", and "C".....	1	
Maintenance mechanics "A", "B", and "C".....	1	
Maintenance mechanics helpers.....	1	
Millwrights "A", "B", and "C".....	1	
Millwright helpers.....	1	
Flask fitters.....	1	
Oilers.....	1	
Maintenance welders.....	1	
<i>Maintenance</i>		
Maintenance employees.....	15	2
Porters.....	1	
Storeroom employees.....	1	
Mechanical maintenance men.....	1	
Watchmen.....	1	
<i>Miscellaneous</i>		
Hourly rated clerical employees.....	2	
Nonconfidential employees.....	1	
Hourly paid transportation employees.....	1	
Hourly paid construction employees.....	1	
Excluded from Bargaining Unit		
<i>Administrative</i>		
Executives.....	3	
Confidential employees.....	1	
Office employees.....	8	2
Salaried employees.....	13	2
Timekeepers.....	4	1
Watchmen.....	15	1
Guards.....	10	1
First aid employees.....	2	
Policemen.....	3	
Clerical employees.....	11	2
Department heads.....	1	
Plant protection employees.....	1	1
Accounting employees.....	1	
Office clerks.....	1	1

Excluded from Bargaining Unit	CIO	AFL
Office boys.....		1
Personnel department.....		1
Plant protection department.....		1
<i>Supervisory</i>		
Supervisory employees.....	7	3
Supervisors.....	7	1
Storeroom supervisors.....	1	
Office supervisors.....	1	
Clerical supervisors.....	1	
Superintendents.....	3	
Assistant superintendents.....	3	
General superintendents.....		1
Departmental superintendents.....		1
Managers.....	2	
Assistant managers.....	2	
Foremen.....	16	2
Assistant foremen.....	15	1
Turn foremen.....	1	
Working foremen.....	2	
General foremen.....	1	
Assistant general foremen.....	1	
Senior foremen.....		1
Machinist foremen.....		1
<i>Technical and Professional</i>		
Technical employees.....	2	1
Technicians.....	1	
Technical engineers.....	1	
Professional employees.....	1	1
Professional employees' assistants.....	1	
Professional students.....	1	1
Draftsmen.....	5	1
Pattern makers.....	3	2
Pattern makers' apprentices.....	1	1
Laboratory assistants.....	1	
Engineers.....	1	
Laboratory employees.....	2	
Professional engineers.....	1	1
Junior engineers.....	1	
Expeditors.....	1	
Time and motion study.....	1	1
Layout men.....	1	
Chemists.....	1	
Bricklayers.....	1	
Inspectors.....	1	1
Engineering department.....	1	
Wood pattern makers.....	1	
Wood pattern makers' apprentices.....	1	
Machinists.....	1	
Machinist helpers.....	1	
Machinist apprentices.....	1	
Oilers.....	1	
Maintenance welders.....	1	
Electricians.....	1	
Electrician helpers.....	1	
Electrician apprentices.....	1	
Brick masons.....	1	1
Metal pattern makers.....	1	
Metal pattern makers' apprentices.....	1	
Power house watch engineers.....		1
Graduate metallurgists.....		1
Chief chemists.....		1
Brick mason apprentices.....		1
<i>Miscellaneous</i>		
Outside truck drivers.....	1	
Special students.....	1	
Nurses.....	2	1
Office janitors.....	1	
Salesmen.....	2	
Monthly rated salaried employees.....	1	
Shipping clerks.....	1	
Office janitress.....	1	
Co-op students.....	1	
Restaurant employees.....	1	
Monthly paid employees.....		1
Storeroom clerks.....		1
Group leaders.....		1

Table 2: Collective Bargaining Units and Exclusions in the Automotive Industry

Included in Bargaining Unit	UAW CIO	UAW AFL	Inde- pendent Union
Total agreements.....	20	6	2
<i>Production</i>			
Production employees.....	7	1	
Group leaders.....	1		
Leaders.....	1		
Piece workers.....	1		
Lead men.....	1		
Material control employees.....	1		
Heating department employees.....	1		
Dynamometer employees.....	1		
Assemblers.....	1		
Machinists.....	1		
Follow-up men.....	1		
Stock chasers.....	1		
Experimental machine shop employees.....	1		
Hourly rated employees.....	1	2	2
Inspectors.....	2		
<i>Maintenance</i>			
Maintenance employees.....	7	1	
Janitors.....	1		
Yard employees.....	1		
Plant protection employees.....	1		
Maintenance patrol men.....	1		
<i>Miscellaneous</i>			
Service employees.....	1		
Office workers.....	1		
Salaried factory clerical workers.....	1		
Miscellaneous employees.....	1		
Shipping employees.....	1		
Receiving employees.....	1		
As certified by NLRB.....	2		
Fire patrolmen.....	1		
Apprentices.....	1		
Excluded from Bargaining Unit			
<i>Administrative</i>			
Administrative employees.....	1	1	
Executives.....	3	2	
Department heads.....	1	1	
Payroll clerks.....	3	1	
Office employees.....	7	3	1
Office timekeepers.....	1		
Clerical employees.....	2	1	1
Confidential salaried employees.....	4		
Salaried employees.....	2	1	1
Confidential clerks.....	1		
Salaried office employees.....	2	2	
Direct representatives of management.....	1		
Labor selectors.....	1		
Shop clerks.....	1		
Engineering office employees.....	2	1	
Accounting employees.....	2		
Personnel and industrial relations employees.....	2		
Timekeepers.....	4	3	
Medical department employees.....	1		
Employment department employees.....	1		
Plant protection employees.....	4	2	1
Guards.....	1	2	1
Watchmen.....	2		
Plant protection chiefs.....	1		
<i>Supervisory</i>			
Supervisory employees.....	7	2	1
Supervisors.....	3		
Assistant supervisors.....	2		
Supervisory inspectors.....	2		
Superintendents.....	8	2	
Assistant superintendents.....	4	2	
Foremen.....	13	3	
General foremen.....	2		
Subforemen.....			1

Excluded from Bargaining Unit	UAW CIO	UAW AFL	Inde- pendent Union
<i>Technical and Professional</i>			
Technical employees.....	1	1	
Technical school students.....	3	1	
Professional employees.....	4		
All engineers.....	2		
Designing engineers.....	4		
Chief engineers.....	2		
Planning engineers.....	1		
Pattern makers.....	1		
Draftsmen.....	3		
Detailers.....	2		
Chemists.....	3		
Metallurgists.....	2		
Artists.....	1		
Designer-artists.....	1		
Clay plaster modelers.....	1		
Routing and tooling employees.....	1		
Tool designing employees.....	1		
Foundry employees.....		1	
Planning department employees.....	1		
Layout employees.....	1		
Estimators.....	1		
Design staff.....	1		
Technical staff.....	1		
Time study men.....	7	2	1
Service engineer.....	1		
<i>Miscellaneous</i>			
Matrons.....	1		
Chauffeurs.....	1		
Nurses.....	1		
Sales employees.....	2	1	
Pattern makers apprentices.....	1		
Indentured apprentices.....	1	1	
Kitchen and cafeteria help.....	1		
Cafeteria employees.....	1		
Casual employees.....	1		
Probationary employees.....			1
Cooperative students.....		1	
Those excluded by NLRB.....	1		

The automobile industry is highly organized, with one industrial union dominant, the United Automobile, Aircraft and Agricultural Implement Workers of America (UAW-CIO). The AFL counterpart is the United Automobile Workers of America. The leading AFL craft unions are the Pattern Makers' League, and the International Molders' Union. They have members in a number of plants and have won a few Labor Board elections. There are two other small craft unions: the Society of Designing Engineers, affiliated with the CIO through membership in the United Office and Professional Workers of America; and the Society of Tool and Die Craftsmen, an unaffiliated union. Aside from these instances of craft organization, unionism in the industry has almost from its inception followed industrial lines.

The Mechanics Educational Society of America entered the field as a craft organization, but extended its jurisdiction to include all employees in the "fabricated metal" industry. Its membership is still mostly confined to automobile tool and die workers. The MESA is an independent organization.

Table 2 shows the breakdown of agreements of twenty-eight automobile companies. More than half

of the agreements analyzed exclude foremen from the bargaining unit. Some agreements leave much to the imagination as to what types of workers are covered.

Table 3: Collective Bargaining Units and Exclusions in the Machinery Industry

Included in Bargaining Unit	CIO	AFL	Independent Union
Total agreements.....	13	13	2
Production			
Hourly paid production employees.....	2		
Nonsupervisory inspectors.....	1		
Production employees.....	6	2	1
Group leaders.....	1	1	1
Expediteurs.....	1		
Stationary engineers.....	1		
Photographers.....	1		
Blueprint machine operators.....	1		
Lead men.....	1		
Hourly paid metallurgical dept. employees.....	1		
Heating department employees.....	1		
Dynamometer operators.....	1		
Assemblers.....	1	1	
Machinists.....	1		
Inspectors.....	1		
Follow-up men.....	1		
Experimental machine shop employees.....	1		
Labor men.....	1		
Tool designers.....	1		
Foundry workers.....	1		
Electrical workers.....	1		
Powerhouse workers.....	1		
Factory employees.....		1	
Male production workers.....		1	
Female production workers.....		1	
Repetitive production workers.....		1	
Special parts workers, straighteners and hand screw machine operators.....		1	
Calculating machine line inspectors.....		1	
Final correction.....		1	
Spring machine operators.....		1	
Journeyman sprayers, polishers and platers.....		1	
Torch men.....		1	
Utility workers and journeymen welders.....		1	
General unskilled help.....		1	
Service employees.....		1	
Plater trainee.....		1	
Maintenance machinists.....		1	
Journeyman machinists.....		1	
Machinists apprentices.....		1	
Automatic screw machine trainees.....		1	
Assistant foremen.....		1	
Head melters.....		1	
Molders.....		1	
Core makers.....		2	
Melters.....		1	
Assistant melters.....		1	
Core bakers.....		1	
Grind and clean-up men.....		1	
Sand cutters.....		1	
Salvage men.....		1	
Set-up men.....		1	
Punch press operators.....		1	
Burr operators.....		1	
Stockboys.....		1	
Head annealers.....		1	
Specialty operators.....		1	
Hammer operators.....		1	
Double action operators.....		1	
Hydraulic redraw operators.....		1	
Lead annealers.....		1	
Horizontal hydraulic.....			
Redraw operators.....		1	
Long tube operators.....		1	
Redraw press operators.....		1	

Included in Bargaining Unit	CIO	AFL	Independent Union
Picklers.....		1	
Carloader operator and weighers.....		1	
Annealing furnace operators.....		1	
Machine tenders.....		1	
Trimmers.....		1	
Annealers.....		1	
Weighers.....		1	
Bellows seam brazers.....		1	
Bellows seam welders.....		1	
Stamp and set-to-length operators.....		1	
Assemblers.....		1	
Form press operators.....		1	
Dent rollers.....		1	
Buffers and platers.....		1	
Valve specialty operators.....		1	
Vertical turret lathe operators.....		1	
Turret lathe operators.....		1	
Valve assemblers and testers.....		1	
Drill press and mill operators.....		1	
Tool crib attendants.....		1	
Assistant to chief inspectors.....		1	
Head inspectors.....		1	
Shift inspectors.....		1	
Special inspectors.....		1	
Inspectors.....		1	
Line lead men.....		1	
Lady supervisors.....		1	
Bench solderers—welders and brazers.....		1	
Chargers and testers.....		1	
Painters.....		1	
Spinning machine operators.....		1	
Induction brazers and hardeners.....		1	
Lapping machine operators.....		1	
Stockmen.....		1	
Trimming lathe operators.....		1	
Hydraulic operators.....		1	
Beader operators.....		1	
Dryers.....		1	
Receiving clerks.....		1	
Shearing machine operators.....		1	
Rolling machine operators.....		1	
Baler operators.....		1	
Machine tenders.....		1	
Shipping clerks.....		1	
Head box makers.....		1	
Head packers.....		1	
Box makers.....		1	
Packers.....		1	
Carloader drivers.....		1	
Supervisors of janitors.....		1	
Cleaners and degreasers.....		1	
Yardboys.....		1	
Staking press operators.....		1	
Caterpillar tractor operators.....		1	
Helpers.....		1	
Repair operators.....		1	
Valve grinders.....		1	
Production grinders.....		1	
Core assemblers.....		1	
Molders.....		1	
Working group leaders.....		1	
Buffers.....		1	
Polishers.....		1	
Platers.....		1	
Platers' helpers.....		1	
Sprayers.....		1	
Lacquerers.....		1	
Hand painters.....		1	
Finishers.....		1	
Scourers.....		1	
Rackers.....		1	
Acid dippers.....		1	
Degreaser operators.....		1	
Truckers.....		1	
Pattern makers.....		1	
Pattern makers apprentices.....		1	

Table 3: Collective Bargaining Units and Exclusions in the Machinery Industry—Continued

Included in Bargaining Unit	CIO	AFL	Independent Union
<i>Maintenance</i>			
Hourly paid maintenance employees.....	2	.....	.....
Factory watchmen.....	1	.....	.....
Maintenance employees.....	6	1	1
Guards.....	1	1	.....
Janitors.....	1	2	.....
Nonproduction employees.....	.....	1	.....
Firemen.....	.....	1	.....
Head firemen.....	.....	1	.....
Maintenance mechanics.....	.....	1	.....
Maids.....	.....	1	.....
Firemen helpers.....	.....	1	.....
<i>Miscellaneous</i>			
Miscellaneous employees.....	1	.....	.....
Hourly paid receiving department employees.....	1	.....	.....
Hourly paid shipping department employees.....	1	.....	.....
Matrons.....	1	.....	.....
Toilet men.....	1	.....	.....
Gas and arc weld school instructors.....	1	.....	.....
Test department employees.....	1	.....	.....
Storekeepers.....	1	.....	.....
Assistant storekeepers.....	1	.....	.....
Chauffeurs.....	1	.....	.....
Truck drivers.....	1	.....	1
Apprentices.....	1	.....	.....
Hourly paid factory clerical workers.....	1	.....	.....
Timekeepers.....	1	.....	.....
Salaried factory clerical employees.....	1	.....	.....
Stock chasers.....	1	.....	.....
Hourly paid employees.....	2	.....	1
Factory clerical workers.....	1	.....	.....
Hourly wage employees.....	1	.....	.....
Works employees.....	.....	1	.....
Excluded from Bargaining Unit			
<i>Administrative</i>			
Administrative employees.....	1	.....	.....
Executives.....	2	2	.....
Personnel interviewers.....	1	.....	.....
Employment interviewers.....	1	.....	.....
Secretary treasury employees.....	1	.....	.....
Student executives.....	.....	1	.....
Timekeepers.....	4	2	1
Payroll clerks.....	1	.....	.....
Plant protection employees.....	2	.....	.....
Watchmen.....	5	3	.....
Guards.....	.....	.....	1
Salaried employees.....	2	2	2
Weekly paid clerical employees.....	1	.....	.....
Salaried clerical employees.....	2	.....	.....
Dispatchers.....	1	.....	.....
Factory office employees.....	2	.....	.....
Main office employees.....	1	.....	.....
Office workers.....	7	2	1
Office and shop clerical employees.....	1	.....	.....
Job analysts.....	1	.....	.....
Safety inspectors.....	1	.....	.....
Secretary to the president.....	1	.....	.....
Secretary to the vice president.....	1	.....	.....
Treasurer.....	1	.....	.....
Comptroller.....	1	.....	.....
Personnel manager.....	1	.....	.....
Secretaries of the company.....	1	.....	.....
Shop Clerks.....	1	.....	.....
Clerical workers.....	5	6	2
Experimental department employees.....	1	.....	1
Office clerical workers.....	1	.....	.....
Traffic employees.....	1	.....	.....
Personnel employees.....	1	.....	.....
Superintendents' secretaries.....	1	.....	.....
Typist clerks in the factory office.....	1	.....	.....
Watchmen-firemen.....	1	1	.....

Excluded from Bargaining Unit	CIO	AFL	Independent Union
Firemen.....	.....	2	.....
Confidential employees.....	.....	1	1
Clerks.....	1	1	.....
Stenographers.....	.....	1	.....
Confidential secretaries.....	.....	1	.....
<i>Supervisory</i>			
Supervisory employees.....	5	4	2
Supervisors.....	3	2	.....
Working supervisors.....	1	.....	.....
Supervisory employees on hourly rates above the rank of working group leader.....	.....	1	.....
Superintendents.....	.....	2	.....
Assistant superintendents.....	.....	2	.....
Assistant supervisors.....	.....	1	.....
Factory superintendents.....	1	.....	.....
Foremen.....	10	5	1
Assistant foremen.....	9	.....	.....
Regular working foremen.....	1	.....	.....
General foremen.....	.....	2	.....
Subforeman.....	.....	.....	1
Group leaders.....	2	.....	.....
<i>Technical and professional</i>			
Time-study men.....	6	.....	2
Engineering employees.....	4	2	.....
Drafting employees.....	2	1	1
Layout employees.....	1	.....	.....
General inspectors.....	1	.....	.....
Pattern makers.....	4	.....	.....
Pattern makers' apprentices.....	4	.....	.....
Rate setters.....	1	.....	.....
Routing and tooling employees.....	1	.....	.....
Estimators.....	1	.....	.....
Pattern department employees.....	1	.....	.....
Laboratory department employees.....	1	2	.....
Technicians.....	3	.....	.....
Process control employees.....	1	.....	.....
Tool design employees.....	1	.....	.....
Material control employees.....	1	.....	.....
Bricklayers.....	.....	1	.....
Lithographers.....	.....	1	.....
<i>Miscellaneous</i>			
Production follow-up men.....	1	.....	.....
Cafeteria employees.....	2	.....	1
Outside truck drivers.....	1	.....	.....
Sales employees.....	1	1	.....
Indentured apprentices.....	.....	1	.....
Janitors.....	.....	1	.....
Employees not hourly paid.....	.....	1	.....
Salesmen.....	.....	2	.....
Truckdrivers.....	1	1	.....
Nurses.....	.....	1	1
Shipping clerks.....	.....	1	.....
Receiving clerks.....	.....	1	.....
Controlmen.....	.....	1	.....
Research workers.....	.....	.....	1

One of the dominant unions in the machinery industry is the International Association of Machinists. It includes, according to its charter, men engaged in machinist and related work such as "the making, erecting, assembling, installing, maintaining, repairing, or dismantling of all or any parts thereof of all machinery, engines, motors, pumps, and all metal power devices."

By and large, every industry requires some mechanics and machinists for repair or maintenance. In the machinery industry, the International Association of Machinists' agreements are often plantwide. Whether the bargaining unit is craft, semiindustrial or indus-

trial depends on many circumstances—AFL unions in the plants, the threat of CIO encroachment, and ease of organization.¹

¹The Twentieth Century Fund, "How Collective Bargaining Works," p. 929.

Table 4: Collective Bargaining Units and Exclusions in the Textile Industry

Included in Bargaining Unit	CIO	AFL	Independent Union
Total agreements.....	16	10	2
<i>Production</i>			
Production employees.....	5	2	1
Piece rate employees.....	1		
Hourly production workers.....	1		
Hourly and piece work rated production workers with more than 30 days service..	1		
Wool sorters.....	1		
Trappers.....	1		
Overlookers.....	1		
Color blenders.....	1		
Matchers.....	1		
Checkers.....		1	
Ticketers.....		1	
Tool makers.....		1	
Expeditors.....		1	
Section hands.....		1	
<i>Maintenance</i>			
Maintenance employees.....	5	2	1
Porters.....	1		
Maintenance workers with more than 30 days service.....	1		
Watchmen.....		1	
Demilitarized guards.....			1
Hourly maintenance workers.....	1		
<i>Miscellaneous</i>			
Mill clerical workers.....	1		
Hourly paid employees.....	1		
Trainees.....	1		
Village workers.....	1		
Cafeteria employees.....	1		
Hourly department clerks.....		1	
Hourly factory clerks.....		1	
As certified by NLRB.....		1	
Truck drivers and helpers.....	1		

Excluded from Bargaining Unit

<i>Administrative</i>			
Administrative employees.....	1		
Administrative secretaries.....	1		
Executives.....	7	5	1
Secretaries.....	1		
Office workers.....	12	6	3
Clerical workers.....	7	2	1
Salaried employees.....	1	1	
Confidential employees.....	1		
Timekeepers.....	2		
Timecheckers.....	2		
Factory clerks.....	1		
Stock clerks.....	1		
Personnel employees.....	2		
Department clerks.....	1		
Telephone switchboard operators.....	1		
Confidential payroll personnel.....	1		
Main office clerical workers.....	1	1	
Standards department workers.....	2		
Wage control department workers.....	1		
Guards.....	3	2	
Watchmen.....	3	2	
Combination firemen-watchmen.....	1		
Armed guards.....	2		
Uniformed guards.....	1		
Scheduling department employees.....	1		
Plant guards.....	1		

Excluded from Bargaining Unit	CIO	AFL	Independent Union
Purchasing department employees.....	1		
Salaried clerical employees.....		2	
Hourly paid clerical employees in offices of superintendents and overseers.....		1	
Dispatchers.....		1	
<i>Supervisory</i>			
Supervisory employees.....	7	4	3
Supervisors.....	4	2	
Shift supervisors.....		1	
Superintendents.....	2	1	
Overseers.....	2	4	
Assistant overseers.....	1		
Foremen.....	6	3	1
Assistant foremen.....	3	2	
Foreladies.....	2	2	1
Second hands.....	1	3	
Managers.....	2		
Submanagers.....	1		
Chief warehousemen.....	1		
Chief stock clerks.....	1		
Working foremen.....		1	
Factory supervisory employees.....	1		
<i>Technical and professional</i>			
Technical employees.....	2	1	
Technicians.....	3		
Professional employees.....	1		
Laboratory technicians.....	1		1
Engineering employees.....	2		
Expeditors.....	1		
Designers.....	3		
Assistant designers.....	3		
Draftsmen.....	2		
Laboratory employees.....	6	3	
Loom fixers.....	1		
Chemists.....	1		
Quality inspectors.....	1		
Planning department employees.....	1		
Water testers.....	1		
Shift engineers.....		1	
Assistant shift engineers.....		1	
<i>Miscellaneous</i>			
Part time employees.....	2		
Nurses.....	2		
Cafeteria employees.....	1		1
Office janitors.....	1		
Gatemen.....	1		
Plant messengers.....	1		
Sales employees.....	1	2	
Follow-up men.....	1		
Hospital staff.....	1		
Instructors.....	1		
Music system employees.....	1		
Messengers.....		1	
Yardmen.....		1	
Warehousemen.....		1	
Truckers and laborers.....		1	
Truck drivers.....		1	
Truck drivers' helpers.....		1	
Section inspectors.....		1	
Head tinners.....		1	
Head painters.....		1	
Head mechanics.....		1	
Storekeepers.....		1	
Power house employees.....		1	
Construction employees.....		1	
Research workers.....		1	
Chauffeurs.....		1	
Excluded by NLRB.....		1	

Table 3 lists a wide variety of job classifications included in several AFL affiliated unions. The exclusions specifically mentioned are broadly the same as those in the automobile and steel industries.

The textile industry is for the most part represented by the Textile Workers Union of America (CIO) and the United Textile Workers of America (AFL). The former includes "all workers employed in the processing by hand or machines, including dyeing, bleaching, printing and finishing of cotton, wool, silk, flax, jute, paper and any other natural or synthetic materials in their original or altered state to produce or manufacture bolts, felts, yarns, cordage, threads, fabrics or other forms into textiles or allied products including but not limited to hosiery, knit goods, lace, carpets, cordage, fabricated textile products and by-products of synthetic materials manufactured by textile or independent plants." The United Textile Workers of America includes those engaged in "the manufacture

of cotton, knit goods, woolen, worsted, carpet, silk, lace, rayon, flax, jute, hosiery, synthetic yarn or any other fabric where textile threads predominate, and dyeing, bleaching, finishing and printing of textile products." (See Table 4.)

The coverage of the average agreement in the textile industry is broader than that in the other three industries. A typical example is the following:

"The employer recognizes the union as the exclusive bargaining agency for all of the employees of employer with regard to wages, hours and other conditions of employment."

ERIC G. CARLSON
Management Research Division

Cost of Supplemental Benefits

EMPLOYEE security programs have been growing in importance in recent years. During the war years employees continued to remember the hardships experienced in depression years and demanded plans which would provide them with security.

The tax regulations which permitted employers to deduct reasonable expenses for employee benefit programs from taxable income were a decided impetus toward the development of these programs. In addition,

the freezing of wages and salaries, which made it difficult to obtain authorization for increases in compensation, caused employers to turn to employee benefit programs to supplement the employees' actual earnings. State and federal social security legislation also called for sizable contributions from employers to finance unemployment and old-age benefits.

Employer contributions for these supplemental benefits have consequently increased tremendously. The

TABLE 1: WAGES AND SALARIES PAID TO EMPLOYEES IN PRIVATE INDUSTRY AND SUPPLEMENTAL PAYMENTS TO SUCH EMPLOYEES, 1929-1946

Source: Department of Commerce
Millions of Dollars

Compensation of Employees	1929	1930	1931	1932	1933	1934	1935	1936	1937
Wages and salaries.....	45,206	40,720	33,607	25,297	23,660	27,420	29,984	33,866	38,432
Supplements to wages and salaries.....	406	402	367	320	283	314	337	637	1,429
Employer contributions for social security									
Old-age and survivors' insurance.....									288
State unemployment insurance.....						3	7	159	588
Federal unemployment tax.....								81	89
Railroad retirement insurance.....									62
Railroad unemployment insurance.....									
Other labor income									
Compensation for injuries.....	278	278	246	207	180	188	201	228	263
Employer contributions to private pension and welfare funds.....	128	124	121	113	103	123	129	169	139
Proportion supplements to wages and salaries.....	0.9	1.0	1.1	1.3	1.2	1.1	1.1	1.9	3.7
	1938	1939	1940	1941	1942	1943	1944	1945	1946
Wages and salaries.....	34,564	37,519	41,130	51,537	65,628	78,671	83,317	82,085	90,237
Supplements to wages and salaries.....	1,595	1,713	1,822	2,215	2,593	3,096	3,443	3,387	3,447
Employer contributions for social security									
Old-age and survivors' insurance.....	261	291	329	419	532	625	648	630	671
State unemployment insurance.....	780	815	813	1,011	1,089	1,246	1,177	1,008	877
Federal unemployment tax.....	102	105	98	124	161	183	184	177	185
Railroad retirement insurance.....	54	58	67	80	98	129	140	140	163
Railroad unemployment insurance.....		33	67	80	99	118	129	130	140
Other labor income									
Compensation for injuries.....	253	255	278	318	367	403	444	474	496
Employer contributions to private pension and welfare funds.....	145	156	170	183	247	392	721	828	915
Proportion supplements to wages and salaries.....	4.6	4.6	4.4	4.3	4.0	3.9	4.1	4.1	3.8

Table 2: Employers' Contributions to Private Pension and Welfare Funds

Source: Department of Commerce

Year	Actual Contributions (Millions of Dollars)	Index (1929=100)	Employers' Contributions as Percentage of Total Wages and Salaries
1929.....	128	100.0	0.28
1930.....	124	96.9	0.30
1931.....	121	94.5	0.36
1932.....	113	88.3	0.45
1933.....	103	80.5	0.44
1934.....	123	96.1	0.45
1935.....	129	100.8	0.43
1936.....	169	132.0	0.50
1937.....	139	108.6	0.36
1938.....	145	113.3	0.42
1939.....	156	121.9	0.42
1940.....	170	132.8	0.41
1941.....	183	143.0	0.36
1942.....	247	193.0	0.38
1943.....	392	306.3	0.50
1944.....	721	563.3	0.87
1945.....	828	646.9	1.01
1946.....	915	714.8	1.01

exact amounts expended for these purposes have been a matter of conjecture, but the national income figures issued by the Department of Commerce include estimates of employers' contributions to employees' monetary compensation not commonly regarded as wages and salaries.¹

The accompanying tabulation gives the estimates of total wages and salaries received by employees in private industry, and the total supplements to wages and salaries divided according to employer contributions for social insurance and other labor income.

¹Bureau of Foreign and Domestic Commerce, "National Income," Supplement to *Survey of Current Business*, July, 1947, pp. 19, 45.

During the years preceding the passage of the Social Security Act, employer contributions to supplemental benefits amounted to approximately 1.0% of wages and salaries. In 1937, employer contributions for these purposes were nearly four times as large as in 1929 because of the unemployment and old-age benefit payroll taxes. During the war years and in 1946, employers' supplementary contributions to wages and salaries amounted to about 4% of total compensation. In 1929, about \$406 million was expended for these supplemental benefits. By 1946, a record high of \$3,447 million was spent.

MORE TO PENSIONS

An interesting fact revealed by the government statistics is the vast sums expended for employers' contributions to private pension and welfare funds. From 1942, when the wage and salary controls were imposed, and the pension and profit sharing provisions of the Internal Revenue Code were revised, the employers' annual contributions for these plans more than tripled—rising from \$247 million to almost a billion dollars a year (\$915 million). Wages and salaries were also increasing, but not at so rapid a rate as the employers' contributions to pension and welfare funds. Table 2 indicates that relative to total compensation the employers' contributions for this purpose increased from 0.38% of the total wages and salaries in 1942 to 1.01% in 1946. They were thus nearly three times as much proportionately.

F. BEATRICE BROWER

Management Research Division

Labor Press Highlights¹

Public Opinion Polls Criticized

Public opinion polls are unfair to organized labor, an editorial in *Labor* (railroad brotherhoods), states. The editorial refers to a study on opinion polls printed in a magazine published by a conservative eastern university. The study shows that the phrasing of the questions asked, along with the topics chosen for polling, are biased against unions.

Frances Perkins Combats Discrimination

Pointing out that "the Christian conscience is operating in the area of life where prejudice rises" in her current column in the *Retail, Wholesale and Department Store Employee* (CIO), former Secretary of Labor Frances Perkins states that the forms of evil and wrong doing are being combated by theologians representing various branches of the Christian religion in cooperation with representatives

¹From the August labor press.

of the Jewish faith. Mrs. Perkins' monthly column for the labor press is aimed at combating racial and religious persecution.

Form for Political Action

Various labor unions in Georgia have organized to form "The Americus Union Labor Council" for the purpose of creating an active interest in politics and promoting labor's aims and educational programs, according to the *Trainman News* (Brotherhood of Railroad Trainmen)

Letter-writing Contest Proves Popular

The UAW-AFL letter writing contest seems to be creating considerable interest. The August issue of the *AFL Auto Worker* says letters in answer to "Why Join a Union?" have come from virtually every local union in the international. The winner will be presented at the UAW-AFL

1947 convention in Milwaukee, to which he will receive an all-expenses-paid trip.

AFL Urges Consumer Coops

Consumer cooperatives and credit unions are being promoted by the AFL in an effort to stem the rising cost of living. *The International Teamster* says the AFL will give information on this subject to any of its affiliates and suggests that they work closely with representatives of the Cooperative League and the Credit Union National Association.

AFL-CIO June Elections Are Close

The AFL and CIO ran neck and neck in the number of bargaining unit elections won during June, 1947, according to the *AFL Weekly News Service*. The CIO nosed out the AFL with a percentage score of 55% won as against 52% by the AFL. Where they both were competing in the same organization, the CIO won thirty-two as against twenty-four AFL victories. Seventy-four per cent of the ballots cast were in favor of a union.

Aid to European Unions

CIO unions have laid out a quarter of a million dollars in the past year to send help to needy European trade unionists in the form of CARE food and blanket packages. Twenty-five thousand CARE parcels have been sent through the National CIO community services committee and many other CIO unions are increasing this number by their orders.—*The Advance* (Amalgamated Clothing Workers)

Train Labor Arbitrators

The importance of training labor arbitrators is stressed by Seton Hall College, in South Orange, New Jersey. The school of business administration is planning to intensify its studies of various phases of the labor-management scene. There will be classes in labor relations and legislation, wages and prices, government and labor, collective bargaining and relation of the Taft-Hartley Act to the labor movement. The aim is to improve labor arbitration and labor-management relations.—*AFL Weekly News Service*

UE Sets Up Housing Committee

A rent committee has been set up by a UE-CIO local union in New York to help workers with their housing problems. It is composed of unemployed union members and meets three times a week to help unionists get legal advice on their housing problems. This committee has also helped to organize tenant groups in the neighborhood.—*The UE News*

Claims Employer Dominates Medical Setup

Medical and hospital services in the Kentucky coal fields are dominated by coal operators and the county medical association, states the *United Mine Workers Journal* (UMW-AFL). In a plea for passage of a national health insurance bill, local unions representing miners of the

Black Mountain Corporation in Kenvir, Kentucky, told of bitter opposition to their efforts to bring about a change of doctors.

Closed Shop in Shipping Company

A closed-shop agreement was signed on August 21, 1947, between United States Steel Company's subsidiary, the Isthmian Steamship Company and the Seafarers International Union (AFL). *West Coast Sailors* (AFL) states that the entire American Federation of Labor movement and the AFL Maritime Trades Council will fight any efforts to nullify, under the Taft-Hartley Act, the union's hiring hall clause.

JANICE F. PACHNER
Management Research Division

Pensions in the News

THREATS of strikes over company pension plans have brought this subject to the attention of the public which is not normally interested in industrial relations. In the case of the New York City Omnibus Corporation, the Transport Workers Union (CIO) threatened to strike when the company interpreted a ruling of an arbitrator to mean that it was obliged to provide pensions only for the duration of the contract which expires January 31, 1948.

The union called off its threatened strike when Supreme Court Justice Pecora ruled in favor of the union and stated "it would clearly inflict cruel hardship upon a pensioner if he were entitled upon retirement only to a maximum of seven monthly payments (as the company seeks to interpret the award) and then left with neither pension nor job." The union had contended that employees who retired between July 1, 1947, the effective date of the current agreement, and January 31, 1948, when it expired, were entitled to lifetime pensions. The company is carrying an appeal to the higher state court.

Another pension plan in the news is that of the Ford Motor Corporation. The company agreed to a pension plan if the United Automobile Workers (CIO) would accept a lower increase in pay than it would receive otherwise. Union members in the Ford Company started voting on September 16 on two contract proposals. The one provided for a pension plan and a pay increase of 7 cents an hour and the other provided for a straight increase of 15 cents an hour.

Preliminary statistics indicate that the workers have voted against the pension proposal by a five-to-one majority in the largest company local. Richard I. Leonard, vice president of the union, conceded defeat of the plan which had been agreed to after months of negotiation between the company and union officials. F. B. B.

Survey of Management Problems:

Stabilizing Employee Income

QUESTION 1: Do you believe that it would be possible for your company to guarantee your employees' income either on an annual basis or for a portion of the year? If not, what are the chief problems confronting your company which would make such a guarantee impractical?

QUESTION 2: To what extent, if any, has your company succeeded in stabilizing production and employment? What methods have you found to be most successful in providing employees with steadier jobs?

ONE of industry's principal aims is to coordinate production, distribution and sales operations so effectively that employees may expect steady earnings through stabilized employment. Evidence of that goal is seen in executives' replies to the current monthly survey. Executives voicing an opinion are unanimous as to management's responsibility to its employees. But they are also unanimous that a guaranteed annual-wage scheme will not work, and that it is not the solution to the problem of providing employee security.

CART BEFORE THE HORSE

The feeling of many of the cooperating executives is summarized by one correspondent who writes:

"We feel that the so-called guaranteed annual wage is both an impractical and erroneous idea. It amounts to putting the cart before the horse. This is not to say that the worker's basic desire for job security should be disregarded. On the contrary, it must be given the broadest recognition by management in the interest of preserving our free economy as well as sound industrial relations."

In a similar vein, an executive states:

"Of course, some of these guarantees may be necessary in our modern complex society but can't we go too far? Don't we need today more incentive—more stimulant and less sedative? Is it a fact that too many guarantees make for insecurity instead of security?"

"People who work for the telephone company come as close to having stabilized guaranteed employment as any group I know," declares an automotive executive. "But," he says, "did this prevent the telephone strike?"

Thirty-five per cent of the participants in this month's survey claim that their companies have had

stable employment and uninterrupted pay days for many years. Fourteen per cent state that their employees have had continuous employment with only a few exceptions. Five per cent declare that year-round employment is probably attainable in their companies although it does not exist now. These groups, representing slightly more than 50% of the total co-operators, are in most cases industries which are not materially affected by seasonal or cyclical peaks and valleys. They include companies in the following categories: chemicals and drugs, paper and paper products, insurance, metal products, petroleum refining and marketing, restaurant, real estate management, food processing and retailing, retail store, electrical products and abrasives.

Several of these companies declare that uneven consumer demand for their products has largely been overcome by building up inventory stock piles of certain basic products and stock items during slack seasons to provide for heavy demands for those products during other periods. Heavy sales volume which occurs in retail stores during the Christmas and Easter seasons is handled by the employment of additional help. In one case, accurate sales forecasting was credited as the underlying reason behind that company's stabilized employment. Another company believed that a continuous advertising program was partially responsible for steady production and employment.

OBSTACLES

The remainder of the replies, representing almost 50% of the total, was firm in the belief that a guaranteed annual wage was "impractical, inequitable and misleading." Over one third of this group states that their production schedules and sales are wholly dependent on customers' demands and that as long as "purchasers of our manufactured commodity do not give us a guarantee of (their) annual requirements . . . it is impossible for us to guarantee annual employment." Several of these co-operators state that their production is controlled to a large extent by style trends and changes which eliminate the possibility of stabilizing employment or guaranteeing a full year's wages. In that respect, one executive believes that "buyer's choice is probably the chief problem confronting our company which would make the guarantee impractical at this time. As long as free-

dom of choice necessitates changes in style of product of the manufacturers we sell, even distribution of production, which is a necessary tool of annual wages, cannot be realized."

Business cycles and the national prosperity were controlling factors in the fluctuating production schedule of several other companies whose spokesmen believe that a guaranteed annual wage is impracticable. Strikes in key industries, and continuing material and fuel shortages are also blamed for irregular operations. As one executive put it:

"We have encountered a number of circumstances and situations so far beyond our control and so far beyond our ability to predict with certainty that it has been extremely difficult for us to maintain 100% production for which we have 200% demand. Strikes by employees of suppliers, costs, shortages of fuel, raw materials, and semifinished materials have combined to make it necessary for us to run almost on a day-to-day basis in some of our most important operations."

Other factors which are seen as reducing the possibility of guaranteeing year-round employment are government participation in fields affecting private enterprise, specialized jobs which prevent interdepartmental transfers of employees and technological changes which necessitate shutdowns during retooling and conversion operations.

MANAGEMENT RECOGNIZES THE NEED

Indications that industry in general has been accepting the challenge of these disturbing factors is found in a somewhat typical observation of one executive:

"I would hesitate to say that it would be impossible for this company to guarantee an employee's income for all or part of a year. To make such an admission would be to admit defeat before entering battle. Certainly, the end of all management activities should be stable production, and, hence, stable employment. The history of this company's production . . . over the immediately preceding postwar period would indicate the impossibility of our making any guarantee, although not the impossibility of taking steps toward the achievement of the desirable goal of stable production and employment."

The steps which have been taken vary widely among the companies. In describing their methods of achieving stable production, employment and wages, some spokesmen point out that attempts to improve regularity of employment are limited to a single phase of the company's operations. Others indicate that the problem is being attacked on a wide front and covers the production and planning departments, the product and process research and development laboratories, the personnel department and the sales and distribution departments.

About 40% of the programs are wholly or partly directed toward sales and distribution operations.

The predominate program involves the effort to build inventories of certain basic lines during slack periods in anticipation of heavy demands during peak seasons. Improved techniques of market analysis and sales forecasting are mentioned almost as often as stock piling. Less frequently used are programs coordinating sales and production, especially by pushing sales of items affected by seasonal declines. A few companies mention the use of advertising and sales promotion campaigns to stimulate consumer demands.

Production and Methods

Over 20% of the replies show that employment stability is being supported by production and methods planning and by technological improvements. While production planning is sometimes geared to a program of market research and sales forecasting, there are more instances in which it is noted that slack periods in the production of certain items are taken up by increased production of other products. An example is found in companies which manufacture mechanical equipment as well as replacement parts for that equipment. In such cases it is found possible to switch production from the manufacture of the original article to replacement parts when seasonal or cyclical slumps in the former were somewhat normally offset by increased activity in the latter. Technological improvements which made possible price reductions and a more favorable competitive position account for stability of production and employment in the view of several executives. Some companies have postponed maintenance, repair and construction projects to slack periods when production employees could be transferred to those projects.

Personnel Management

Transfer of employees from one department to another was sometimes possible without special training. But more often, shifting of workers from one job to another required training programs aimed at broadening employees' skills. Such programs, assigned to the personnel department in most cases, are among the leading methods used to provide year-round employment. Other means are the use of overtime employment during peak periods, retention of surplus personnel for limited periods during slack periods and, in one case, a "level income" plan which places overtime earnings in an individual reserve fund from which withdrawals are made during any week in which an employee is prevented from making his regular wages. Two companies use separation pay to extend the pay days for discharged employees.

Product Research

Slightly less than 20% of the stabilization programs are based on product and process research and de-

velopment. These projects seek to build and maintain consumer demand through increasing the quality, utility or serviceability of the product. They also produce new products designed to attract new customers, increase sales volume through wider markets and consequently stabilize both production and employment.

CONDITIONAL WAGE GUARANTEES

A few correspondents believe that a guaranteed wage plan might be possible, but "necessarily, for example, there would be a length of service requirement, perhaps five years. But such a guarantee could not be for the present level of earnings. Just how much lower it should be pegged we are not prepared to say, but in the face of a five-year record of continuously climbing earnings, the inflationary elements that are presently at work and the many and serious uncertainties that lie ahead, any such guarantee should be well below present levels." Such conditions, it was observed, "might render it useless and convert it into little more than a gesture." A frequently mentioned aspect of a guaranteed annual-wage plan is summed up by one of the executives as follows: "One feature of such a guarantee that appears to many to be an insurmountable obstacle is that when it is most needed it becomes most difficult to apply. When it is not needed, such as in prosperous periods, it is more easily applied."

Additional excerpts from replies to this month's survey follow:

"In our particular company, seasonal fluctuations are generally found to be unimportant, but since a substantial proportion of our products depend for their ultimate sales on heavy consumer durables or on semiluxuries, the specter of a crushing liability might face our management in the event of a sharp and prolonged depression. Should the timing of such a depression coincide with the period when many new products might have reached the peak of their growth trend, a very difficult situation might occur. Any substantial guarantee might then be reduced, and this might create more unrest than would have been the case should no guarantee plan have been put in at all."

* * *

"From the broader point of view, we even doubt the long-range wisdom of trying to provide so many guarantees. There have been many guarantees in the last decade—some good, some bad. We guarantee minimum wages, maximum hours, social benefits, vacations, unemployment benefits, and a host of other things. Guarantees can be valid only so long as a company is able to meet them and only so long as what we think of as our free competitive enterprise system can stand up under the increasingly heavy burden. By guaranteeing so many things have we tended to destroy the thing that made us great—the old 'go and get it' spirit? Most of us are normally lazy and apparently there are many today who are finding a way to live, or at least exist, by just lazing along and letting

these things come to them. Can we grow by so doing?"

* * *

"... a company's guarantee of employment for any definite period of time can be no better than the prospects of sales for that period and the size of the company's cash reserves. The only money we get for salaries comes from customers. We are unable to predict with any practical certainty just how long customers are going to continue to pay us money for our products, or in what amounts. If we attempted to meet a lengthy guarantee out of working capital or cash reserves, we would very quickly have to liquidate the business down to the point where there would be fewer jobs for all."

* * *

"... any guarantee of employee income which might possibly be considered by our company would include at the minimum the following limitations:

"1. Only employees with long company service would be covered. The length of service 'breaking point' for eligibility would be determined by estimating the number of employees needed under a given degree of adverse business forecast for the life of the guarantee.

"2. The amount of income guaranteed would have to be limited to an estimated percentage of full annual income or subject to reductions to levels estimated from reduced production hours and reduced sales income during adverse conditions.

"3. The period and amount of income guaranteed would have to be supplemented by state unemployment compensation benefits, now available in all states in which we have employees.

"4. A general cancellation clause would be necessary to exclude 'disaster' cases, such as fire, flood, etc.

"5. The length of the guarantee period would have to be short enough to permit sales, production, and employment forecasting.

"To our knowledge, most so-called income or employment guarantees in existence today contain at least three, if not all five, of these limitations, making application of the word 'guarantee' somewhat questionable. With these limitations and possibly others necessarily incorporated in any employee income guarantee which might be considered by our company, it becomes apparent that such a guarantee is far less important than proper management of the organization, especially through stabilization of sales, production and employment."

* * *

"Our industry generally is one of great stability and that, coupled with the fact that we have been growing for many years, has made possible very steady employment within our company. In view of this stability we have considered it inadvisable to announce any formal guarantee since any announced plan would have to carry with it certain qualifications which, to our people, would appear rather strange since they have always had regular work fifty-two weeks a year."

S. AVERY RAUBE
Management Research Division

SIGNIFICANT LABOR STATISTICS

Source: THE CONFERENCE BOARD, unless otherwise indicated

Source: THE CONFERENCE BOARD, unless otherwise indicated										
Item	Unit	1947						Year Previous	Percentage Change	
		July	June	May	April	Mar.	Feb.		Latest Month over Previous Month ¹	Latest Month over Year Previous ²
Clerical salary rates										
Billing machine operator.....	mode in dollars	....	....	....	30	....	....	....	....	....
Calculating machine or Comptometer oper.	mode in dollars	....	....	....	35	....	....	....	....	....
Office boy or girl.....	mode in dollars	....	....	....	28	....	....	....	....	....
Stenographer.....	mode in dollars	....	....	....	35	....	....	....	....	....
Telephone switchboard operator.....	mode in dollars	....	....	....	42	....	....	....	....	....
Senior copy typist.....	mode in dollars	....	....	....	36	....	....	....	....	....
Consumers' Price Index										
Food.....	1923=100	155.8	153.3	....	....	152.3	....	116.2	+1.6	+34.1
Housing.....	1923=100	91.0	91.0	....	....	91.0	....	91.0	0	0
Clothing.....	1923=100	107.2	107.2	....	....	108.2	....	96.4	0	+11.2
Men's.....	1923=100	124.2	124.4	....	....	124.4	....	106.8	-0.2	+16.3
Women's.....	1923=100	90.1	90.0	....	....	92.0	....	85.9	+0.1	+4.9
Fuel and light.....	1923=100	102.4	101.1	....	....	101.4	....	97.3	+1.3	+5.2
Electricity.....	1923=100	65.4	66.6	....	....	66.8	....	66.9	-1.8	-2.2
Gas.....	1923=100	95.2	95.2	....	....	94.4	....	94.5	0	+0.7
Sundries.....	1923=100	128.7	128.0	....	....	126.9	....	117.6	+0.5	+9.4
All items.....	1923=100	126.5	125.4	....	....	124.8	....	108.2	+0.9	+16.9
Purchasing value of dollar.....	1923 dollars	.791	.797	....	....	.801	....	.924	-0.8	-14.4
All items (BLS).....	1935-39=100	....	157.1	156.0	156.1	156.3	153.2	133.3	+0.7	+17.9
Strikes (BLS)										
Beginning in period.....	number	p 300	p 350	425	460	325	290	563	-14.3	-46.7
Workers involved.....	thousands	p 500.6	p 475.0	200.0	600.0	100.0	90.0	223.0	+5.3	+119.3
Total man days idle.....	thousands	p 4,200	p 3,750	5,700	7,750	850	1,230	3,970	+12.0	+5.8
Turnover rates in manufacturi'g (BLS)										
Separations.....	per 100 employees	....	p 4.8	5.4	5.2	4.9	4.5	5.7	-11.1	-15.8
Quits.....	per 100 employees	....	p 3.2	3.5	3.7	3.5	3.2	4.0	-8.6	-20.0
Miscellaneous.....	per 100 employees	....	p .1	.1	.1	.1	.1	.2	0	-50.0
Discharges.....	per 100 employees	....	p .4	.4	.4	.4	.4	.3	0	+33.3
Layoffs.....	per 100 employees	....	p 1.1	1.4	1.0	.9	.8	1.2	-21.4	-8.3
Accessions.....	per 100 employees	....	p 5.3	4.8	5.1	5.1	5.0	6.7	+10.4	-20.9
Wage Earners										
All manufacturing industries (BLS)										
Earnings, hourly.....	average in dollars	....	1.927	1.208	1.186	1.180	1.170	1.084	+1.6	+13.2
weekly.....	average in dollars	....	49.37	48.46	47.50	47.72	47.29	43.31	+1.9	+14.0
Hours per production worker.....	average per week	....	40.3	40.1	40.1	40.4	40.4	40.0	+0.5	+0.8
Twenty-five manufacturing industries										
Earnings, hourly.....	average in dollars	1.352	r 1.347	1.329	1.304	1.285	1.279	1.194	+0.4	+13.2
weekly.....	average in dollars	53.60	54.25	53.65	52.79	52.10	52.10	47.64	-1.2	+12.5
Hours per production worker.....	average per week	39.7	40.3	40.4	40.5	40.6	40.8	40.0	-1.5	-0.8
Employment.....	1923=100	125.0	127.4	127.9	128.6	128.8	128.8	119.1	-1.9	+5.0
Total man hours.....	1923=100	100.9	104.3	105.0	105.8	106.3	106.8	96.8	-3.3	+4.2
Payrolls.....	1923=100	251.8	259.8	257.8	255.1	252.2	252.2	213.2	-3.1	+18.1
Wage-rate increases.....	average per cent	7.2	8.7	9.1	7.2	7.0	10.6	8.5	....	....
Production workers affected.....	per cent	4.5	8.6	18.5	6.8	1.5	3.4	2.9	....	....
Manufacture and distribution of gas										
Earnings, hourly.....	average in dollars	....	....	....	....	....	a 1.205	1.086	....	+11.0
weekly.....	average in dollars	....	....	....	....	....	a 53.33	48.77	....	+9.4
Hours per wage earner.....	average per week	....	....	....	....	....	a 43.8	44.2	....	-0.9
Generation and distribution of electricity										
Earnings, hourly.....	average in dollars	....	....	....	....	....	a 1.315	1.203	....	+9.3
weekly.....	average in dollars	....	....	....	....	....	a 56.36	51.71	....	+9.0
Hours per wage earner.....	average per week	....	....	....	....	....	a 42.1	42.1	....	0
Class I railroads³										
Earnings, hourly.....	average in dollars	....	....	1.177	1.175	1.189	1.199	1.117	+0.2	+5.4
weekly.....	average in dollars	....	....	57.52	58.23	59.07	60.04	52.83	-1.2	+8.9
"Real" weekly earnings.....	1923=100	....	....	155.6	157.3	159.5	165.0	165.4	-1.1	-5.7
Hours per wage earner.....	average per week	....	....	48.9	49.6	49.7	50.1	47.3	-1.4	+3.4
Agricultural wage rates per month⁴ (BAE)										
With board.....	average in dollars	103.00	....	....	96.20	....	....	96.40	+7.1	+6.8
With board.....	average in dollars	98.70	....	....	91.50	....	....	92.00	+7.9	+7.3
Without board.....	average in dollars	114.00	....	....	107.00	....	....	106.00	+6.5	+7.5
New York City metro. area, seventeen manufacturing industries										
Earnings, hourly.....	average in dollars	1.378	1.384	1.367	1.343	1.332	1.331	1.238	-0.4	+11.5
weekly.....	average in dollars	56.08	57.30	56.05	55.20	55.14	54.84	50.39	-2.1	+11.3
Hours per production worker.....	average per week	40.7	41.4	41.0	41.1	41.4	41.2	40.7	-1.7	0

¹Changes in Agricultural Wage Rates are quarterly.

²Changes in the Conference Board's Consumers' Price Index are between July, 1947 and June, 1946, since these indexes were compiled on only a quarterly basis in 1946.

³Derived from Interstate Commerce Commission reports.

⁴As of first day of month.

aJanuary, 1947

pPreliminary

rRevised

Vision Program Pays Dividends

THE Ford Instrument Company, of Long Island City, is convinced that its vision program (a part of the over-all safety program) is a sound investment. Since its introduction about five years ago, eye injuries, which in 1941 constituted 60% of all reported injuries, have been reduced to 5%. Today's annual per capita compensation cost is only \$0.38 in comparison with the 1941 rate of \$2.00.

Formal safety planning was started at the Long Island company in 1942, in conjunction with its insurance carrier, after a plant survey revealed that machines were not sufficiently guarded for safe operation, and that many workers were neglecting to wear safety goggles despite numerous regulations directed toward possible eye hazards.

The safety campaign was an extensive one. All jobs were studied with the intention of analyzing vision and safety requirements. With the cooperation of the American Optical Company, standards for head and eye protection were developed and specific types of goggles were selected for all occupations in which eye hazards were involved. For instance, when investigation indicated that eye safety for a paint shop worker handling acids required a goggle with an all-rubber headband and clear superarmorplate lenses, such as shown in goggle E (Chart 2), and a punch press operator engaged in sanding operations was safer when wearing goggle B (Chart 2), these goggles were recommended as required equipment for the jobs. In order to avoid errors in selection, each supervisor was issued a chart which clearly specified the eye equipment essential for each dangerous occupation (Chart 1).

SAFETY GLASSES PROVIDED

Prescription safety glasses were provided when necessary. With the exception of the professional services in connection with prescription lenses (eye examinations, etc.) goggles were furnished without cost to employees. Mobile repair units were circulated throughout the factory to service glasses and broken or scratched goggles were replaced immediately. Posters, bulletin boards, accident analyses reports and contests were used to acquaint workers with safety facts and regulations and to stimulate safety consciousness. Lighting was changed and color programming adopted to relieve eyestrain and improve visibility.

¹This is the first of two articles on vision programs for industry. The second, which will appear shortly, describes a company's experience with the Bausch and Lomb industrial vision service.

With the accelerated program, serious eye injuries occurred less frequently and injury absence rates were decreased. While the results were gratifying, several major problems remained unsolved. Minor injuries continued, the number of rejects and errors remained high and production output stayed below the normal level. Unsafe practices could be blamed for some of the accidents, but there was sufficient evidence to indicate that the majority of the employees were neither negligent nor inattentive on their jobs. However, many of the workers, and especially those on precision work, did show evidence of visual inefficiency.

SIGHT SCREENING INTRODUCED

In order to overcome this problem, the company started a sight screening program early in 1945, with the American Optical sight screener selected as the vision testing instrument. A three-point program was introduced to check vision, provide a guide for selective placement, and establish a permanent record of the worker's vision.

The program was placed under the direction of the company's medical department and a nurse, instructed in program procedures by the American Optical Company, did the actual sight screening. Since the procedure is a prediagnostic aid, and analysis of screening scores requires professional skill, the company retained an ophthalmologist to interpret the tests.

VOLUNTARY SCREENING HAILED

Twelve hundred persons participated in the first voluntary screening. Although 630 of them wore glasses prior to the vision checkup, tests indicated that 160 of the group could benefit by additional eye care and a change in their correction. Evidence of vision defects was found in 330 other employees who had never worn glasses.

Each worker received a report on his sight screener test and persons needing attention were advised to consult a refractionist of their own choosing for diagnostic examinations. (Some companies employ full-time specialists to attend to the vision needs of workers, while some others establish panels of professional advisors or retain part-time practitioners for eye examination referrals.)

Employees not requiring corrective lenses after screening and examination continued to use regular goggles or other head and eye protection necessary for safe job operation. Following diagnostic examinations,

CHART 2: STANDARDS FOR EYE PROTECTION

TYPE A



F3149 FUL-VUE GOGGLE

Clear Super Armorplate Lenses
6 Curve. Side Shields

TYPE A1



F3149 FUL-VUE GOGGLE

Medium shade Super Armorplate
Calobar Lenses 6 Curve
Green plastic side shields

TYPE B



F3147 FUL-VUE GOGGLE

Clear Super Armorplate Lenses 6 Curve

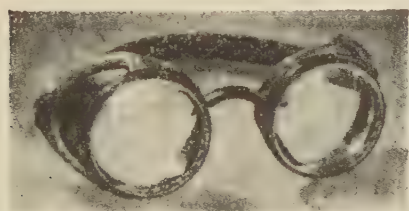
TYPE B1



F3147 FUL-VUE GOGGLE

Medium shade Super Armorplate
Calobar Lenses 6 Curve

TYPE C



301-A DURALITE

Clear Super Armorplate Lenses
All Rubber Headbands

TYPE C1



301-A DURALITE

Medium shade Super Armorplate
Calobar Lenses
All Rubber Headbands

TYPE D



404-A DURAWELD

Noviweld Lenses
Clear Cover Lenses
All Rubber Headbands

TYPE E



322-A HERCULES SPECIAL

Clear Super Armorplate Lenses
All Rubber Headbands

AO SIGHT-SCREENER RECORD

Name _____ Dept. _____ Clock No. _____ Date _____

Job Title _____ Eye Protection Used ☐ Male ☐ Female ☐ Age _____

Wears Glasses: Yes ☐ No ☐ At All Times ☐ Sometimes ☐ Work Only ☐ Reading Only ☐ Bifocals ☐

Dial No.	RED SERIES	Prof. Interpretation	Dial No.	BLACK SERIES	Prof. Interpretation
1	Check letters reported	KR XB KR XB XB Alternation	1	Check letters reported	KR XB KR XB XB Alternation

FOR BOTH RED AND BLACK SERIES, IN 2, 3 AND 4 DRAW A LINE THROUGH EACH ERROR IN THE LAST GROUP READ

2	E F TC DZEN BNEC EHZN FZEC TFEO ZNHT		2	E F TC DZEN BNEC EHZN FZEC TFEO ZNHT	
3	N F ET' CDZE ZBNE NEHZ ECFN ETOF NTZH		3	N F ET CDZE ZBNE NEHZ ECFN ETOF NTZH	
4	Z E CE CNDZ EBNC ZHEC NEDF OEFT THNZ		4	Z E CE CNDZ EBNC ZHEC NEDF OEFT THNZ	
5	Draw line through letter under incorrect groups. 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 A B C D E		5	Draw line through letter under incorrect groups. 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 A B C D E	
6	Draw line through position reported for horizontal line. (Top of scale) (Bottom of scale)		6	Draw line through position reported for horizontal line. (Top of scale) (Bottom of scale)	
7	Draw line through position reported for vertical line. 2 4 6 8 10 12 14 16 18 20 22 24 26 28		7	Draw line through position reported for vertical line. 2 4 6 8 10 12 14 16 18 20 22 24 26 28	

COLOR PLATES (DRAW LINE THROUGH ERRORS) 1 2 3 4 5 6 7 8 9 10

NOTE. Interpretation is to be made by refractionist only.

Technicians are **not** to give any information about results. They are **not** to make comments or recommendations.Referred for Eye Examination Yes ☐ No ☐ Employee Notified _____ Examined _____ Filed _____

970 Copyright, U.S.A., 1945, American Optical Company

Chart No. 1235V

CHART 4

1	2	3	4	5	6	7

VISUAL CAPABILITIES

Name _____ Age _____ Date _____

Job Title _____ Dept. _____ Clock No. _____

Special Considerations _____

Correction Required For } Continuous Use ☐ Close Work Only ☐ Special Occupational Use ☐ None Needed ☐

1		2		3		4		5		6		7			
DISTANCE VISUAL ACUITY (BINOCULAR)		NEAR VISUAL ACUITY (BINOCULAR)		MUSCLE BALANCE		BINOCULAR VISION		DEPTH PERCEPTION (STEREOPSIS)		COLOR DISCRIMINATION		VISUAL FIELDS			
20/10	A	20/10	A	NO MARKED IMBALANCE	A	SATISFACTORY	A	PER CENT STEREOPSIS	105%	A	GOOD COLOR DISCRIMINATION	A	SATISFACTORY	A	
20/15	B	20/15	B						SUPPRESSES	R L ALT.					B	90%	B
20/20	C	20/20	C			ONE-EYED	R L				C	75%	C	MEETS LIMITED REQUIREMENTS		B	NO SERIOUS CONTRACTION	B
20/30	D	20/30	D						NO USABLE VISION	D		60%	D		NO COLOR DISCRIMINATION				C	SERIOUS CONTRACTION	C
20/40	E	20/40	E	45%	E										
20/50	F	20/50	F			LESS	F								
20/70	G	20/70	G												
20/100	H	20/100	H												
20/200	I	20/200	I												

Should Be Re-Examined (Date) _____ Signed _____

Title _____

CHART 5

JOB VISUAL REQUIREMENTS

Approved _____

Job Title _____ Date _____

Dept. _____ General Class of Operations _____

Eye Protection } Impact ☐ Glare ☐ Injurious Rays ☐ Splashes ☐ Fumes ☐
Requirements } Frame Style _____ When Needed _____

Special Color Vision Demands _____

Remarks _____

1		2		3		4		5			6		7	
DISTANCE VISUAL ACUITY (BINOCULAR)		NEAR VISUAL ACUITY (BINOCULAR)		MUSCLE BALANCE		BINOCULAR VISION		DEPTH PERCEPTION (STEREOPSIS)			COLOR DISCRIMINATION		VISUAL FIELDS	
20/10	A	20/10	A	NO MARKED IMBALANCE PERMISSIBLE	A	REQUIRED	A	MINIMUM PER CENT STEREOPSIS REQUIRED	105%	A	REQUIRED	A	GOOD FIELD REQUIRED	A
20/15	B	20/15	B			NOT IMPORTANT	B		90%	B				
20/20	C	20/20	C						75%	C				
20/30	D	20/30	D			ONE-EYED PERSON ADEQUATE	C		60%	D	LIMITED REQUIREMENTS	B	FAIR FIELD ACCEPTABLE	B
20/40	E	20/40	E	NOT IMPORTANT	B				45%	E				
20/50	F	20/50	F						40%	F				
20/70	G	20/70	G						35%	G				
20/100	H	20/100	H						30%	H				
20/200	I	20/200	I			NO VISION REQUIRED	D		LESS	F	NOT REQUIRED	C	NOT IMPORTANT	C

Signed _____ For Plant _____ Signed _____

Title _____ Title _____

1	2	3	4	5	6	7

the company provided prescription safety glasses to all individuals who required them and who presented ophthalmic prescriptions to the safety department.

An immediate reduction in accidents resulted from the introduction of the screening and eye care program and workers reported diminishing eye strain and fatigue. There was also a noticeable decrease in errors and an increase in production.

WHAT IT IS

The company reports that the screening procedure is a simple one. Equipment consists of the AO sight screener, records, manuals, forms and safety and ophthalmic materials and other optical aids. An engineering consultant from the American Optical Company assisted in setting up the program. The AO sight screener is, primarily, a precision testing instrument designed to check visual performance under near and distance conditions and thereby discover individuals who require eye attention. The goal is accomplished through the administration of the following seven tests for:

1. Simultaneous binocular vision (ability to see with both eyes at the same time).
2. Right-eye acuity. (Both eyes are kept open during right and left eye acuity test).
3. Left-eye acuity (ability to see detail).

4. Binocular acuity (keenness or sharpness of vision, both eyes working together).

5. Stereopsis (depth perception or the ability to see in three dimensions).

6. Vertical muscular balance (eye posture in the vertical plane).

7. Lateral muscular balance (eye posture in the horizontal plane). A special color test is given when color discrimination is a job requirement.

In administering tests, the operator, through the use of a single dial, shifts various tests into the examinee's direct line of sight. The individual's visual capacities are then recorded on a specially prepared sight-screener record shown in Chart 3. The results are interpreted by a refractionist, who determines the individual's need for eye examination and his visual ability to perform specific tasks with eye comfort and safety. The analysis of the worker's visual capabilities is transferred to a form, (illustrated in Chart 4) which is used by the employment, medical and safety departments as a guide to safe personnel placement.

In order to assure proper placement, the worker's visual capabilities are checked against the vision requirements of the job. If findings indicate that the worker still does not meet requirements despite attempts to rehabilitate him visually, he is placed on a suitable job in which his visual capabilities match

favorably with the demands of the job. Chart 5 is generally used for this purpose. The American Optical Company believes that approximately 90% of industry's vision problems can be solved by bringing employee vision up to its highest level through professional attention. Less than 10% require selective placement.

Today all employees of the Ford Instrument Company receive annual vision checkups and the screening program has become an important part of the pre-placement examination. The company reports complete participation and cooperation of the union and plant supervisory force in this continuous educational program.

Employee interest in the program is being sustained, according to the safety director, who states that practically everyone who needs eye protection is wearing his goggles on the job. Furthermore, reports show that the majority of workers waste no time in following up recommendations for eye examinations.

WHAT THE CHART SHOWS

Parts of the informational poster issued by the Ford Instrument Company are reproduced on pages 264, 265. The text of the poster is given below.

Eye Hazardous Odd Jobs—Consult Safety Department

Cutting, shearing, or backing out bolts, rivets, splice bars, etc., or splicing keys. Riveting, caulking, and bucking up.

Chipping, breaking, cutting, picking, or drilling concrete, brick, brickwork, stone, slag, masonry, cement, plaster, manganese, or any other hard materials, or laying brick in hot sulphur or tar.

When cleaning blow pipes, furnace flues, and checkers.

Breaking coal, rock, or other hard materials.

Cutting or splicing cable or pouring hot metal into sockets.

Trimming springs on punch presses.

Cleaning or scraping preparatory to painting, handling hot tar, applying whitewash or using cement gun and when painting products or buildings, also when cleaning paint brushes.

Chipping with chisel and sledge.

Picking or chipping ice on frozen ground or removing ice from any object.

Unloading, shoveling, dumping lime, plaster, dolomite, soda ash, dust, etc.

Scalding and cleaning boilers, tanks, drums, etc.

Control board work where there is danger from electric flash.

Filling or repairing soda and acid fire extinguishers.

ONE EYED MEN MUST WEAR GOGGLES ON ALL JOBS.

Any other new job.

* * *

General Information

Listed above, for your guidance, is approved head and eye protection, when worn, will reduce employees' exposure to eye injuries. Also listed are odd jobs that will have to be performed from time to time where approved eye protection can be worn.

Supervisors should familiarize themselves with all occupations and jobs that involve head and eye hazards, and see if the proper type of protection is provided and worn. As an example for the employees, and your own protection, supervisors should wear the protection themselves.

* * *

When in Doubt Consult the Safety Department

HOW TO OBTAIN: Goggles can be obtained and individually fitted by the supervisor in charge at the Main Tool Crib of each building. No payroll deduction will be made for goggles as long as employee remains in our employ. Upon termination of service, the employee must obtain a tool clearance check signed by the tool crib. Final pay cannot be obtained until such clearance is presented to the cashier.

BROKEN SAFETY GLASSES: Any safety glasses broken during working hours will be repaired or replaced by the company if returned to the tool crib.

PERSONAL STREET GLASSES: No personal glasses broken or damaged will be replaced.

PRESCRIPTION SAFETY GLASSES: These safety glasses are provided by the company if employee supplies optical prescription. Mono-Goggles will be provided to cover your own personal glasses while waiting for the prescription safety glasses to be made up. These to be returned on obtaining prescription safety glasses.

CARE OF SAFETY GLASSES: Each employee will be given his or her individual goggle. Take good care of it, keep lenses clean and sanitary—clean goggles seldom fog, **AND DO NOT LEND YOUR GOGGLE TO OTHERS.**

SUB-CONTRACTORS: Safety glasses will not be provided for sub-contractors or their employees unless authorization is first obtained from the Safety Department.

ETHEL M. SPEARS

Management Research Division

Labor and Technology

INTRODUCTION of new machinery designed to increase production and improve methods has, on a number of occasions, met with opposition by workers and their representatives. Changes are in many instances installed without any prior notice to employees. Objections are frequently made to the method of announcing these changes. Management representatives often point out that technological changes are helpful to the community at large, and, since labor is an important part of the community, workers should be interested in machinery that increases production. Labor leaders say that this matter can be ironed out through collective bargaining. However, there are situations, particularly within the building trades, where technological changes are opposed both by workers and the contractors who employ them.

LABOR'S ATTITUDE

The attitude of labor leaders in mass production industries was expressed by Victor G. Reuther, educational director of the UAW-CIO, at a recent labor-management conference at Cornell University. Mr. Reuther explained that worker efficiency is one of the factors which determine how much is produced, and that the efficiency of the American worker can be utilized if workers are assured "that their increased effort will be translated into higher living standards rather than into greater corporate benefits."

The matter of increased production through better machinery and improved worker efficiency is being tackled in a very interesting manner by W. M. Aicher, director of industrial relations, at the Selby Shoe Company in Portsmouth, Ohio, through a column in the company's house organ, *Selby News*. Mr. Aicher is aiming, through this column, to acquaint employees with the answers to their questions as to how improvements in machinery will affect them. This column, which is headed "Better Machinery Makes Work Easier," points out the benefits that certain new machines have brought to the men who operate them. The following excerpt from one of Mr. Aicher's columns indicates his approach.

"One of the most important reasons behind our success as a nation is our better machinery. Other countries have just as many brilliant minds and certainly many good people, but, among other things, they lack the machinery which has made us great. To be sure, the manufacturing methods and technical skill which we have developed through the years also played a great part in the advancement that we have made. Basically,

however, it is the machinery which has made the difference.

"Better machinery has resulted in lower costs through mass production and in the development of our country at a faster pace than any other nation. . . . When we compare the steam shovel to the back-breaking labor of the ditch digger, and when we realize the difference in the cost of having an excavation made by the use of machinery instead of hand labor, we can get some idea of the progress that has been made possible through better machinery. Because of it, we have been able to reduce the hours of labor by fifty per cent and more during the last fifty years, and have been able to provide for all our people a standard of living not matched by any other country in the world.

"Many improvements in shoe manufacturing machinery are just around the corner. These have been long overdue, and are just as essential to our further progress as a nation as were the steam shovel and automobile. They must result in lowering the cost of the finished article and at the same time in lesser effort on the part of the worker."

Labor leaders have on occasion been denounced by their rank-and-file members for supporting technological changes. This is caused by a lack of understanding and workers' fear of losing their seniority rights.

It is felt by some observers that labor leaders, too, should outline, through long-range educational programs, the advantages of increased and improved production.

William Green, president of the AFL, and Philip Murray, president of the CIO, have expressed themselves as welcoming machinery. In general, however, labor leaders feel that when a new machine is introduced, it should not be done at the cost of jobs. The attitude of organized labor can best be expressed through the following statement by a labor leader.

"We will accept the technological changes if we are able to secure participation in determining how the change will affect employees in the bargaining unit, and, above all, prevent the technological change from causing unemployment within the ranks of the bargaining unit."

PAST METHODS OF PARTICIPATION

Widespread experience reveals that technological improvements and method changes are rarely accompanied by immediate benefits to the workers. Instead, they are quite frequently accompanied by quickly improvised efforts to appease the employees affected. Widespread experience also reveals that these improvisations run grave risk of completely distorting the basic wage structure.

Labor may participate in savings in labor cost in two ways, either by changes in current hourly earnings or by the distribution of lump sums or bonuses.

If hourly earnings are to be changed it will be accomplished in one of two ways, either by alteration of base rates or of incentive standards. To raise the base rates of all employees equitably upon the inauguration of a methods change may not be unreasonable in theory, but it is not always practical. To raise the base rates of certain affected employees would immediately throw the whole base rate structure out of line for the future; it would no longer reflect the differences in skill, responsibility and working conditions.

It is bad practice to allow incentive standards to get out of line in attempting to distribute savings. Many companies, however, have drifted into such a situation. Far more often than management itself realizes, methods are changed by engineers, by supervisors, or by workers themselves with no corresponding change in standards. These changes may be neglected because no one thinks of reporting the change, or they are felt to be too trivial or the expense or trouble of the adjustment may seem too great. Sometimes workers or unions resist so strongly that a compromise is negotiated or no change is made at all.

Industry abounds with these conditions. They seem to be one of the chief reasons for ruined wage incentive plans and for chaotic labor relations. Many executives contend that the desired solution does not lie in granting labor a portion of the savings of technological improvement as a result of fighting or horse-trading. They also say that it should not be done by adulterating and disrupting the wage structure.

These men assert that, if labor is to participate through the distribution of lump sums or bonuses, it must be accomplished as a distribution from profits either at a date remote to the occurrence of the change in method, or at the time of the change and in anticipation of the saving.

ONE SUGGESTION

A major problem, therefore, is to find a solution which will leave the wage-payment structure balanced and intact and still not be so remote and dilute as the ordinary profit-sharing plan. Many executives are considering the idea of a lump-sum, labor-cost-reduction bonus to be paid to workers whenever a change in incentive standards has become an actuality. This plan was devised by John W. Nickerson when he was Director of the War Production Board's management consultant division. It is outlined below.

A. Whenever there is a change in manufacturing methods, material, equipment, or conditions, there should be a corresponding change in the time or productivity standard so that these standards remain uniform and a reasonable measure of effort.

B. The new methods and standards should be put into effect by management with all necessary understanding on the part of the employees or representatives. There should, of course, be an opportunity for appeals by workers through the regular grievance procedure in cases of misunderstanding.

C. After new standards have been in effect long enough to be considered accepted, say one month, a calculation should be made of the estimated first year's net saving. This would be equal to the known reduction in labor cost per unit of production, multiplied by the forecasted number of units per year, with adjustments for the expense of making the change. In some instances, this number would be subject to considerable variation. If necessary, later calculations could be made.

D. A decision should be made as to the amount of lump-sum bonus to be paid as a portion of the first year's savings.

1. In the case of method changes initiated by management this may be, say, 20% to 30%. For example, if the engineering division designs an automatic device which will enable an employee to run two machines instead of one or which increases speeds or feeds and if the yearly saving is estimated at \$10,000, the amount distributed might be \$2,000. With twenty employees operating the new job this all may be distributed to them in proportion to their standard allowed time for the first month. Or if it seemed more equitable, one half could go to those affected and the other half paid into a pool to be distributed to the entire plant or division when the size of the pool had reached a certain minimum amount.

2. In the case of method changes initiated by a non-supervisory employee, the award or bonus may be, say, 40% to 60%. A reasonable portion of this might go to the suggester, another portion to those affected by the change, and the remainder into a pool or pools.

3. Although the goal should be to institute technological improvements gradually enough to prevent layoffs, still, as time goes on, there may be necessary business curtailments for other reasons. A portion of the created pools could be reserved for dismissal wages.

4. It might be desirable to all concerned to include supervision in the award. If so, a certain percentage of the award or the pool could be so distributed.

5. Incentive systems unfortunately are usually fraught with loose standards. They are caused either by management's errors in judgment, uncooperative studies, or small and intangible method changes.

Experience indicates that it is unwise for management to attempt to alter such standards. They are often, however, as troublesome to unions as to managements. When both groups agree upon new studies in such instances, management should be willing to make very considerable distribution of savings, perhaps 100% of those estimated for the first year.

ABRAHAM A. DESSER

RUSSELL A. HEDDEN

Management Research Division

Trends in Collective Bargaining

Seniority for Supervisors

Policies relating to seniority for supervisors often vary from one local union to another, even in the same international or national union. An increasing number of collective bargaining agreements (AFL-CIO-independent) have clauses which protect an employee's seniority if he is promoted to a supervisory position, and is later returned to the production line where he again becomes a member of the bargaining unit.

This is frequently a highly controversial issue at many collective bargaining conferences. So that its employees may have job protection when they return to the bargaining unit, an eastern machine fabricating plant has renegotiated an interesting clause with its bargaining unit covering seniority for supervisors. The clause reads:

"If an employee has been transferred prior to the signing of this agreement or is subsequently transferred from one occupation within the bargaining unit covered by this agreement into another occupation which is not within the said unit (including a supervisory occupation) and if he is thereafter transferred back into the bargaining unit, he will at that time be credited with the seniority which he had at the time of the first transfer plus all seniority accumulated during the time when he was outside the unit."

Explaining the Union Contract

Following the negotiations between labor and management and the printing of a collective bargaining agreement in a booklet, the intent of the contract often remains unclear to the bargaining unit employees. To offset it, some companies are including a clause which provides for classroom instruction, in the meaning and intent of the collective bargaining agreement.

Such a clause has been negotiated into a textile union's agreement with an eastern mill. Titled "Instruction," it reads:

"To the end that the union may be better served in carrying out the provisions of this agreement, the employer agrees to provide, at its own expense and outside of working hours, classroom instruction courses in its time-study procedure, including the plan or method of establishing incentive rates, to six members of the Shop Grievance Committees designated by the union and to pay such members for time spent in attendance at such classroom instruction at their straight-time hourly rates, provided, however, that time spent at such classroom instruction shall not be regarded as "hours worked" in the computation of any overtime payments and that the

employer shall not be required to provide such instruction courses more often than once or to more than six of such members in any twenty-four month period."

Work Rules in the Contract

With unionization, a company is sometimes confronted with the problem of having its long-established work rules accepted by the union. Representative clauses in labor contracts pertaining to disciplinary action have been grouped into six different classifications by Francis O'Dell, author of a report on "Disciplinary Clauses in Union Contracts," published by the industrial relations section of the California Institute of Technology in May, 1947. They are:

1. Disciplinary action considered as a company prerogative.
2. Notice required before discharge.
3. Suspension—final decision of discipline severity to be made during suspension period.
4. Meeting of interested parties before employee leaves plant
5. Discharge for just cause—grievance procedure used for appeal.
6. Disciplinary action with union participation.

Although disciplinary action is generally a prerogative of management, its action can usually be appealed by the union through established grievance procedure. A midwestern rubber company in its agreement with a CIO bargaining unit has outlined a list of work rules and the type of disciplinary action that will be utilized by the company for violation of the work rules. They read:

1. When it becomes necessary to lay off employees according to the provisions of this agreement, the company shall notify employees affected at least five days before layoffs are made.
2. Loss of time through sickness or accident shall not affect an employee's seniority.
3. Employees shall not trade shifts without the consent of the foreman. Permission shall be granted if it does not interfere with efficient production and operation. Same not to exceed fifteen days unless mutually agreed to between the representative and the foreman.
4. All bulletin boards shall be available for posting of union notices approved by the company.
5. Regular and overtime hours shall be equalized on a job basis. Hours refused shall be charged as hours worked against employee refusing, foreman to keep list of hours worked available at all times.
6. All employees covered by this agreement shall be paid on Thursday of each week, and should the regular

pay day fall on a holiday or a day when the plant is not in operation, employees shall be paid on the preceding day.

(a) Employees who are not working shall receive their pay on the regular pay day.

(b) Employees with justifiable reasons may receive their pay on a preceding shift.

7. When an employee leaves his job, the number of hours that he is away from his job shall be deducted from the total number of hours that he is scheduled to work.

8. It is understood that where the masculine pronoun is used in this agreement, it shall refer to both genders.

9. No employee shall be permitted to enter the factory more than thirty minutes before his shift begins. Each employee shall be in his department and place of work at his regular starting time. No employee shall be permitted to perform work pertaining to his job before starting time of shift.

10. Male and female employees shall be considered separately in seniority in relation to transfers, division of work and layoffs.

11. Nothing in this contract shall deny an employee the right to take up personal matters with supervision.

12. A place shall be maintained in the factory lobby where authorized union publications may be distributed.

13. When for disciplinary reasons an employee is given a last chance warning, he or she will be notified by management, and the union will be notified in writing. This probationary period will continue for one year from the first violation occurring during the probationary period. Further violations occurring within six months from date of suspension will result in dismissal. When the second violation occurs more than six months or less than one year after suspension, the employee will again be laid off for one week. In all cases the probationary period will be extended for one year following suspension of an employee. It is mutually agreed between the company and the union that they shall cooperate in every way to correct these conditions among employees, the union to receive written notice of all warnings.

More Use of Arbitration

With the passage of the Taft-Hartley Act, many expect that there will be greater utilization of arbitration to settle the differences of opinion that arise between management and labor. There are both management and union men who believe that any dispute that cannot be settled through the grievance procedure should be arbitrated. In such instances, the arbitration clause is known as "an open end clause." Other union and management men believe that arbitrators should be limited to the collective bargaining terms as outlined in the labor agreement.

Another controversial issue is the question of arbitrating the renewal of a labor agreement when it cannot be settled peacefully. Today management more often has the right, as well as the union, to initiate arbitration procedures.

Many labor agreements outline in detail the manner in which unsettled grievances shall be settled through arbitration, as well as the limits of the arbi-

tration. An eastern radio parts plant has incorporated into its agreement a provision which states that "the arbitrator shall be limited to ruling on interpretations as to the application or meaning of the terms of this agreement or any written supplementary agreements made thereto. The arbitrator shall have no power to add to, or subtract from, or modify any of the terms of this agreement or any other agreements made supplementary thereto. Furthermore, the arbitrator shall not rule proposed amendments to or propose modifications of this agreement or its extinction or removal."

Labor agreement clauses pertaining to arbitration usually indicate the agency or individual that will arbitrate the dispute or select the arbitrator for the dispute. Clauses are not uncommon which state that if after representatives of the union and representatives of management cannot agree on an arbitrator, then either or both parties may request the American Arbitration Association or the United States Conciliation Service or a state department of labor agency to submit a panel of names from which the parties can choose an arbitrator. Many agreements also state that if the parties cannot select from the submitted panel an arbitrator acceptable to both then either one of the above agencies are asked to appoint an arbitrator, whose name has not been submitted heretofore.

On Taft-Hartley

There seems to be a halt in policy formulating under the Taft-Hartley law, and no rules and regulations pertaining to the program of the newly organized Federal Mediation Board have yet been submitted to the American people. Prior to August 22, 1947, when the Taft-Hartley law became effective, many unions beat the deadline by negotiating clauses regarding suability of unions and closed shops. In fact, from the day the law was passed (June 22, 1947) until it became effective the main issue on the collective bargaining front was union demands for clauses beyond the boundaries of the Taft-Hartley law.

A strike and lockout clause, negotiated in California and referred to by the employer as "the Taft-Hartley issue clause," states that "in so far as it may be permitted by law, the company hereby waives any right that it may have to sue the local union or the international union with which it is affiliated for damages resulting from boycott, slowdown, or cessation of work, occurring during the period of this agreement, which is participated in by any employee of the company." The company has the right to take disciplinary action against employees who violate the no-strike clause and the union has the right to appeal such action by the company through the three steps of the grievance procedure but not arbitration.

ABRAHAM A. DESSER

Management Research Division

Consumers' Prices in July

CONSUMERS' prices rose again in July to a new all-time peak. THE CONFERENCE BOARD's index of retail prices for consumers' goods and services purchased by moderate income families increased 0.9% between June and July. This advance in the overall index resulted from increases in three of the components, namely, rises of 1.6% in food, 1.3% in fuel and light, and 0.5% in sundries. The rise in the fuel and light component reflected advancing fuel prices since the electricity index actually declined 1.8% and the gas index remained unchanged. The two remaining principal components of the index, housing and clothing, showed no change between June and July. In the case of the latter, a rise in women's clothing prices offset a decline for men's clothing.

The July index was 126.5 (1923=100), representing an increase of 16.9% since June, 1946, the nearest month a year ago for which comparable data were compiled. The July index was 47.1% higher than in January, 1941, and 2.8% above the peak after the last war which occurred in June, 1920. The purchasing value of the dollar was only 79.1 cents in July, a decline of 0.6 cent from the previous month, thus establishing a new low level for this series.

Of the sixty-six individual cities for which indexes were compiled in July, only two showed declining prices—Cleveland with a change of 0.1% and Trenton, New Jersey, where it was 1.0% lower than in the preceding month. Of the remaining sixty-four cities, the increases ranged from 2.2% in International Falls, Minnesota, to 0.1% in Baltimore, Lewistown, New Haven, and New Orleans. The median rise, 0.9%, occurred in nine cities.

Since these indexes were compiled only on a quarterly basis in 1946, no July figures are available for that year to provide a measurement of annual change in consumers' prices. For this reason, therefore, a thirteen-month period has been used, namely, from June, 1946, to July, 1947. As might be expected, all city indexes for this period showed appreciable rises in consumers' prices. They ranged from a low of 14.2% in Dallas, to a high of 22.6% in Parkersburg, West Virginia. This top was closely followed by a 22.3% increase in Louisville. The median increase, of 17.2%, occurred in both Boston and Grand Rapids.

These July indexes represent the first month since compilation was resumed on a monthly basis affording a comparison with data in the previous month. They will continue to be available on a monthly basis in the future.

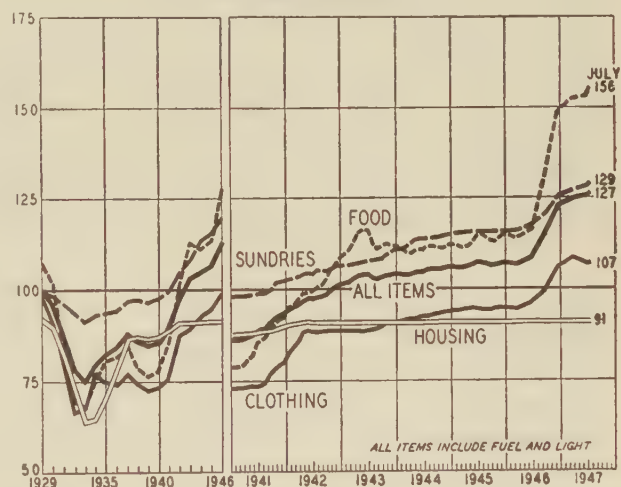
ROBERT A. SAYRE

Statistical Division

Consumers' Price Index

Source: THE CONFERENCE BOARD

Index Numbers, 1923=100



CONSUMERS' PRICE INDEX FOR THE UNITED STATES, AND PURCHASING VALUE OF THE DOLLAR

Date	Weighted Average of All Items	Food	Housing ¹	Clothing			Fuel and Light			Sundries	Purchasing Value of Dollar
				Total	Men's	Women's	Total ²	Electricity	Gas		
Index Numbers, 1923=100											
1946 June.....	108.2	116.2 ^a	91.0	96.4	106.8	85.9	97.3	66.9	94.5	117.6	92.4
September.....	114.7	131.4	91.0	99.7	111.4	88.0	99.9	66.9	94.5	120.2	87.2
December.....	123.2	149.3	91.0	105.8	121.0	90.5	100.3	66.9	94.5	125.9	81.2
Annual average ³	113.2	127.7	91.0	99.2	110.9	87.5	98.7	66.9	94.5	119.9	88.6
1947 March.....	124.8	152.3	91.0	108.2	124.4	92.0	101.4	66.8	94.4	126.9	80.1
June.....	125.4	153.3 ^b	91.0	107.2	124.4	90.0 ^r	101.1	66.6	95.2	128.0 ^r	79.7
July.....	126.5	155.8	91.0	107.2	124.2	90.1	102.4	65.4	95.2	128.7	79.1

Percentage Changes

June 1947 to July 1947.	+0.9	+1.6	0	0	-0.2	+0.1	+1.3	-1.8	0	+0.5	-0.8
June 1946 to July 1947.	+16.9	+34.1	0	+11.2	+16.3	+4.9	+5.2	-2.2	+0.7	+9.4	-14.4

¹Data on housing collected twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.

²Includes fuel as well as electricity and gas.

³Average of four quarterly indexes.

^aBased on food prices for June 13, 1946.

^bBased on food prices for June 16, 1947.

^rRevised

CONSUMERS' PRICE INDEXES FOR SIXTY CITIES

Source: THE CONFERENCE BOARD

NOTE: These indexes do NOT show intercity differences in price level or standards of living. They show only changes in consumers' prices in each city, which changes may be compared with those for other cities.

City	Index Numbers Jan., 1939 = 100			Percentage Changes		City	Index Numbers Jan., 1939 = 100			Percentage Changes	
	July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947		July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947
Akron						Chicago					
Food.....	206.1	207.5	156.0	-0.7	+32.1	Food.....	209.7	205.0	148.9	+2.3	+40.8
Housing ¹	113.9	113.9	113.8	0	+0.1	Housing ¹	105.8	105.8	105.8	0	0
Clothing.....	145.6	144.5	131.4	+0.8	+10.8	Clothing.....	147.9	148.0	134.6	-0.1	+9.9
Fuel and light.....	131.2	124.4	115.5	+5.5	+13.6	Fuel and light.....	103.3	99.7	93.7	+3.6	+10.2
Housefurnishings.....	129.6	127.9	122.7	+1.3	+5.6	Housefurnishings.....	142.3	141.3	130.0	+0.7	+9.5
Sundries.....	139.1	137.3	128.7	+1.3	+8.1	Sundries.....	135.5	135.3	125.2	+0.1	+8.2
Weighted Total.....	154.2	153.4	133.3	+0.5	+15.7	Weighted Total.....	152.8	151.0	127.9	+1.2	+19.5
Atlanta						Cincinnati					
Food.....	211.7	209.5	151.2	+1.1	+40.0	Food.....	199.5	195.8	145.9	+1.9	+36.7
Housing ¹	99.2	99.2	99.2	0	0	Housing ¹	100.9	100.9	100.9	0	0
Clothing.....	147.7	148.3	132.8	-0.4	+11.2	Clothing.....	157.0	156.7	139.7	+0.2	+12.4
Fuel and light.....	114.8	114.8	105.7	0	+8.6	Fuel and light.....	116.3	112.6	107.5	+3.3	+8.2
Housefurnishings.....	149.6	147.9	129.5	+1.1	+15.5	Housefurnishings.....	138.6	137.1	127.6	+1.1	+8.6
Sundries.....	132.4	131.5	124.5	+0.7	+6.3	Sundries.....	141.2	139.6	124.0	+1.1	+13.9
Weighted Total.....	151.7	150.7	128.3	+0.7	+18.2	Weighted Total.....	153.5	151.6	128.2	+1.3	+19.7
Baltimore						Cleveland					
Food.....	201.9	204.0	151.8	-1.0	+33.0	Food.....	196.5	195.4 ^r	143.4	+0.6	+37.0
Housing ¹	103.2	103.2	103.2	0	0	Housing ¹	109.7	109.7	109.7	0	0
Clothing.....	148.9	145.3 ^r	134.8	+2.5	+10.5	Clothing.....	157.0	157.1	138.4	-0.1	+13.4
Fuel and light.....	124.1	122.6	112.3	+1.2	+10.5	Fuel and light.....	99.2	112.1	105.9	-11.5	-6.3
Housefurnishings.....	159.0	155.9	145.4	+2.0	+9.4	Housefurnishings.....	151.4	153.0	130.5	-1.0	+16.0
Sundries.....	137.1	136.2 ^r	125.3	+0.7	+9.4	Sundries.....	142.6	140.7	130.6	+1.4	+9.2
Weighted Total.....	154.8	154.6 ^r	131.6	+0.1	+17.6	Weighted Total.....	151.9	152.1	129.8	-0.1	+17.0
Birmingham						Dallas					
Food.....	209.6	207.1	159.0	+1.2	+31.8	Food.....	198.1	198.5	150.1	-0.2	+32.0
Housing ¹	105.7	105.7	105.7	0	0	Housing ¹	105.6	105.6	105.6	0	0
Clothing.....	150.9	151.0	133.8	-0.1	+12.8	Clothing.....	151.3	151.0	133.1	+0.2	+13.7
Fuel and light.....	121.3	113.8	107.8	+6.6	+12.5	Fuel and light.....	89.1	89.1	89.1	0	0
Housefurnishings.....	149.1	144.6	121.2	+3.1	+23.0	Housefurnishings.....	146.9	147.0	134.3	-0.1	+9.4
Sundries.....	127.2	126.3	121.4	+0.7	+4.8	Sundries.....	137.4	135.2	128.8	+1.6	+6.7
Weighted Total.....	151.0	149.4	130.3	+1.1	+15.9	Weighted Total.....	147.1	146.5	128.8	+0.4	+14.2
Boston						Dayton					
Food.....	189.8	188.3	144.3	+0.8	+31.5	Food.....	197.2	194.8	146.9	+1.2	+34.2
Housing ¹	104.5	104.5	103.5	0	+1.0	Housing ¹	106.4	106.4	105.9	0	+0.5
Clothing.....	141.4	140.8	133.0	+0.4	+6.3	Clothing.....	147.7	146.8	129.4	+0.6	+14.1
Fuel and light.....	132.3	130.0	120.8	+1.8	+9.5	Fuel and light.....	121.1	113.6	107.2	+6.6	+13.0
Housefurnishings.....	152.9	152.6	132.3	+0.2	+15.6	Housefurnishings.....	162.0	159.0	139.1	+1.9	+16.5
Sundries.....	141.4	141.3	127.3	+0.1	+11.1	Sundries.....	135.6	134.2	123.7	+1.0	+9.6
Weighted Total.....	150.9	150.0	128.7	+0.6	+17.2	Weighted Total.....	151.1	149.2 ^r	128.0	+1.3	+18.0
Bridgeport						Denver					
Food.....	187.3	185.2	145.8	+1.1	+28.5	Food.....	199.9	199.4	148.8	+0.3	+34.3
Housing ¹	106.5	106.5	106.5	0	0	Housing ¹	105.5	105.5	105.6	0	-0.1
Clothing.....	144.0	144.6	131.2	-0.4	+9.8	Clothing.....	148.3	149.4	131.7	-0.7	+12.6
Fuel and light.....	130.8	130.4	122.7	+0.3	+6.6	Fuel and light.....	99.8	94.4	94.6	+5.7	+5.5
Housefurnishings.....	143.6	143.0	128.2	+0.4	+12.0	Housefurnishings.....	145.0	145.5	129.0	-0.3	+12.4
Sundries.....	150.9	149.3	127.9	+1.1	+18.0	Sundries.....	135.3	134.7	125.1	+0.4	+8.2
Weighted Total.....	151.6	150.5	129.5	+0.7	+17.1	Weighted Total.....	149.5	148.9	127.9	+0.4	+16.9
Buffalo						Des Moines					
Food.....	208.1	206.0	151.4	+1.0	+37.5	Food.....	196.7	193.6	138.9	+1.6	+41.6
Housing ¹	112.3	112.3	112.3	0	0	Housing ¹	105.3	105.3	105.3	0	0
Clothing.....	146.1	144.8	132.7	+0.9	+10.1	Clothing.....	158.4	157.2	141.9	+0.8	+11.6
Fuel and light.....	122.1	119.9	110.8	+1.8	+10.2	Fuel and light.....	128.4	128.4	122.5	0	+4.8
Housefurnishings.....	155.9	150.9	135.6	+3.3	+15.0	Housefurnishings.....	155.8	156.9	127.8	-0.7	+21.9
Sundries.....	137.4	136.4 ^r	126.5	+0.7	+8.6	Sundries.....	137.3	136.2	123.4	+0.8	+11.3
Weighted Total.....	155.5	154.0 ^r	131.6	+1.0	+18.2	Weighted Total.....	150.4	149.1	126.7	+0.9	+18.7
Chattanooga						Detroit					
Food.....	215.3	213.6	164.0	+0.8	+31.3	Food.....	201.9	200.3	152.8	+0.8	+32.1
Housing ¹	103.7	103.7	103.7	0	0	Housing ¹	107.4	107.4	107.0	0	+0.4
Clothing.....	144.8	144.4 ^r	134.5	+0.3	+7.7	Clothing.....	151.2	150.9	139.4	+0.2	+8.5
Fuel and light.....	110.3	110.3	105.1	0	+4.9	Fuel and light.....	123.9	122.4	111.9	+1.2	+10.7
Housefurnishings.....	136.5	138.3 ^r	132.3	-1.3	+3.2	Housefurnishings.....	152.1	150.5	130.2	+1.1	+16.8
Sundries.....	129.7	129.0	117.8	+0.5	+10.1	Sundries.....	150.6	149.6	135.2	+0.7	+11.4
Weighted Total.....	152.0	151.3 ^r	131.1	+0.5	+15.9	Weighted Total.....	155.7	154.7	133.5	+0.6	+16.6

¹Rents surveyed twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.

^rRevised.

CONSUMERS' PRICE INDEXES FOR SIXTY CITIES—Continued

Source: THE CONFERENCE BOARD

NOTE: These indexes do NOT show intercity differences in price level or standards of living. They show only changes in consumers' prices in each city, which changes may be compared with those for other cities.

CITY	Index Numbers Jan., 1939 = 100			Percentage Changes		CITY	Index Numbers Jan., 1939 = 100			Percentage Changes	
	July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947		July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947
Duluth						Indianapolis					
Food.....	196.0	192.0	144.0	+2.1	+36.1	Food.....	208.8	205.4	157.3	+1.7	+32.7
Housing ¹	100.2	100.2	100.2	0	0	Housing ¹	107.9	107.9	107.9	0	0
Clothing.....	158.7	158.4	142.8	+0.2	+11.1	Clothing.....	143.8	143.8	128.9	0	+11.6
Fuel and light.....	123.3	123.3	109.3	0	+12.8	Fuel and light.....	125.4	121.1	111.7	+3.6	+12.3
Housefurnishings.....	161.4	159.1	141.8	+1.4	+13.8	Housefurnishings.....	147.5	147.2	133.1	+0.2	+10.8
Sundries.....	136.7	135.7	126.0	+0.7	+8.5	Sundries.....	142.8	141.3 ^r	131.3	+1.1	+8.8
Weighted Total.....	152.6	150.9	128.9	+1.1	+18.4	Weighted Total.....	155.3	153.5 ^r	133.5	+1.2	+16.3
Erie, Pa.						Kansas City, Mo.					
Food.....	222.1	221.7	155.4	+0.2	+42.9	Food.....	189.5	187.1	137.2	+1.3	+38.1
Housing ¹	110.2	110.2	110.2	0	0	Housing ¹	105.5	105.5	105.5	0	0
Clothing.....	169.0	169.6	152.2	-0.4	+11.0	Clothing.....	152.6	153.1	137.1	-0.3	+11.3
Fuel and light.....	133.4	128.0 ^r	119.5	+4.2	+11.6	Fuel and light.....	104.3	103.7	113.5	+0.6	-8.1
Housefurnishings.....	148.2	148.5	135.0	-0.2	+9.8	Housefurnishings.....	135.6	135.1	124.6	+0.4	+8.8
Sundries.....	148.9	147.9	134.5	+0.7	+10.7	Sundries.....	140.5	139.1	128.3	+1.0	+9.5
Weighted Total.....	165.5	164.6	136.9	+0.5	+20.9	Weighted Total.....	147.4	146.3	126.9	+0.8	+16.2
Fall River						Lansing					
Food.....	186.6	185.8	141.6	+0.4	+31.8	Food.....	225.6	225.2	175.6	+0.2	+28.5
Housing ¹	104.3	104.3	104.3	0	0	Housing ¹	98.0	98.0	98.0	0	0
Clothing.....	156.7	157.4	139.4	-0.4	+12.4	Clothing.....	146.0	146.2	132.7	-0.1	+10.0
Fuel and light.....	125.6	123.7 ^r	115.3	+1.5	+8.9	Fuel and light.....	115.2	115.2	105.5	0	+9.2
Housefurnishings.....	133.7	133.8 ^r	121.9	-0.1	+9.7	Housefurnishings.....	157.1	156.4	138.7	+0.4	+13.3
Sundries.....	136.9	136.3	127.1	+0.4	+7.7	Sundries.....	146.7	145.6 ^r	132.1	+0.8	+11.1
Weighted Total.....	148.9	148.4	128.1	+0.3	+16.2	Weighted Total.....	156.7	156.3 ^r	135.6	+0.3	+15.6
Front Royal, Va.						Los Angeles					
Food.....	233.1	231.4 ^r	169.7	+0.7	+37.4	Food.....	200.7	198.1	155.6	+1.3	+29.0
Housing ¹	107.3	107.3	107.3	0	0	Housing ¹	106.2	106.2	106.2	0	0
Clothing.....	165.9	166.0 ^r	148.7	-0.1	+11.6	Clothing.....	143.0	144.1	128.0	-0.8	+11.7
Fuel and light.....	144.9	131.6	123.9	+10.1	+16.9	Fuel and light.....	93.4	93.4	93.4	0	0
Housefurnishings.....	139.2	139.0	134.9	+0.1	+3.2	Housefurnishings.....	134.0	132.7	124.9	+1.0	+7.3
Sundries.....	135.5	134.5	127.0	+0.7	+6.7	Sundries.....	136.2	133.4	125.1	+2.1	+8.9
Weighted Total.....	158.6	157.0 ^r	136.3	+1.0	+16.4	Weighted Total.....	148.9	147.3	129.8	+1.1	+14.7
Grand Rapids						Louisville					
Food.....	207.8	206.6	156.1	+0.6	+33.1	Food.....	212.2	208.7	150.4	+1.7	+41.1
Housing ¹	106.5	106.5	106.5	0	0	Housing ¹	103.9	103.9	103.9	0	0
Clothing.....	151.7	151.8	141.6	-0.1	+7.1	Clothing.....	146.4	147.7	133.3	-0.9	+9.8
Fuel and light.....	135.9	125.9	114.0	+7.9	+19.2	Fuel and light.....	129.2	125.9	114.4	+2.6	+12.9
Housefurnishings.....	157.5	157.0	148.2	+0.3	+6.3	Housefurnishings.....	159.7	158.9	135.6	+0.5	+17.8
Sundries.....	143.4	142.3	128.3	+0.8	+11.8	Sundries.....	140.2	139.1	123.2	+0.8	+13.8
Weighted Total.....	156.9	155.4	133.9	+1.0	+17.2	Weighted Total.....	159.5	157.8	130.4	+1.1	+22.3
Green Bay, Wis.						Macon					
Food.....	194.9	193.8	141.9	+0.6	+37.4	Food.....	199.6	196.4	150.9	+1.6	+32.3
Housing ¹	106.8	106.8	102.8	0	+3.9	Housing ¹	114.0	114.0	114.0	0	0
Clothing.....	162.9	162.2	142.0	+0.4	+14.7	Clothing.....	153.1	152.1	136.8	+0.7	+11.9
Fuel and light.....	117.4	117.4	105.0	0	+11.8	Fuel and light.....	103.2	103.2	97.7	0	+5.6
Housefurnishings.....	147.5	146.7	131.6	+0.5	+12.1	Housefurnishings.....	146.3	146.8	139.0	-0.3	+5.3
Sundries.....	133.1	131.6	122.4	+1.1	+8.7	Sundries.....	130.1	129.4	124.7	+0.5	+4.3
Weighted Total.....	149.9	149.0	126.4	+0.6	+18.6	Weighted Total.....	151.7	150.3	132.2	+0.9	+14.8
Houston						Meadville, Pa.					
Food.....	203.7	200.2	149.1	+1.7	+36.6	Food.....	206.7	203.5 ^r	148.9	+1.6	+38.8
Housing ¹	105.7	105.7	105.7	0	0	Housing ¹	110.8	110.8	110.8	0	0
Clothing.....	146.2	146.6	132.2	-0.3	+10.6	Clothing.....	139.9	140.9	123.2	-0.7	+13.6
Fuel and light.....	81.8	81.8	81.8	0	0	Fuel and light.....	118.9	113.8 ^r	110.1 ^r	+4.5	+8.0
Housefurnishings.....	136.9	134.9	117.6	+1.5	+16.4	Housefurnishings.....	148.3	147.4	136.8	+0.6	+6.8
Sundries.....	135.1	134.0	125.7	+0.8	+7.5	Sundries.....	142.7	141.3	126.2	+1.0	+13.1
Weighted Total.....	147.7	146.3	126.9	+1.0	+16.4	Weighted Total.....	153.2	151.5 ^r	128.4 ^r	+1.1	+19.3
Huntington, W. Va.						Memphis					
Food.....	206.5	205.3	150.6	+0.6	+37.1	Food.....	216.9	214.9	163.6	+0.9	+32.6
Housing ¹	111.7	111.7	111.7	0	0	Housing ¹	108.4	108.4	108.4	0	0
Clothing.....	147.7	147.8	131.5	-0.1	+12.3	Clothing.....	154.2	155.3	141.5	-0.7	+9.0
Fuel and light.....	100.0	100.0	100.0	0	0	Fuel and light.....	108.5	104.3	99.3	+4.0	+9.3
Housefurnishings.....	157.1	154.7	139.0	+1.6	+13.0	Housefurnishings.....	151.7	151.3	132.4	+0.3	+14.6
Sundries.....	138.9	137.4	129.0	+1.1	+7.7	Sundries.....	123.4	122.4	114.5	+0.8	+7.8
Weighted Total.....	156.3	155.3	132.8	+0.6	+17.7	Weighted Total.....	150.9	149.8	130.1	+0.7	+16.0

¹Rents surveyed twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.

^rRevised.

CONSUMERS' PRICE INDEXES FOR SIXTY CITIES—Continued

Source: THE CONFERENCE BOARD

NOTE: These indexes do NOT show intercity differences in price level or standards of living. They show only changes in consumers' prices in each city, which changes may be compared with those for other cities.

CITY	Index Numbers Jan., 1939=100			Percentage Changes		CITY	Index Numbers Jan., 1939=100			Percentage Changes	
	July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947		July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947
Milwaukee						Parkersburg, W. Va.					
Food.....	198.6	196.1	147.0	+1.3	+35.1	Food.....	214.3	211.0	147.9	+1.6	+44.9
Housing ¹	103.5	103.5	103.5	0	0	Housing ¹	104.2	104.2	104.2	0	0
Clothing.....	161.5	161.0 _r	143.3	+0.3	+12.7	Clothing.....	150.3	150.0	125.7	+0.2	+19.6
Fuel and light.....	119.5	118.8	111.4	+0.6	+7.3	Fuel and light.....	100.1	100.1	100.1	0	0
Housefurnishings.....	155.4	157.4 _r	137.2	-1.3	+13.3	Housefurnishings.....	152.7	152.7	134.4	0	+13.6
Sundries.....	134.3	132.5	126.1	+1.4	+6.5	Sundries.....	130.2	129.7	123.1	+0.4	+5.8
Weighted Total.....	150.0	148.8	129.0	+0.8	+16.3	Weighted Total.....	158.5	157.1	129.3	+0.9	+22.6
Minneapolis						Philadelphia					
Food.....	214.2	209.4	154.9	+2.3	+38.3	Food.....	189.4	186.4	145.8	+1.6	+29.9
Housing ¹	103.7	103.7	103.7	0	0	Housing ¹	102.7	102.7	102.7	0	0
Clothing.....	156.5	155.8 _r	134.3	+0.4	+16.5	Clothing.....	144.5	145.2	134.9	-0.5	+7.1
Fuel and light.....	115.7	113.6	104.8	+1.8	+10.4	Fuel and light.....	126.4	124.5	117.3	+1.5	+7.8
Housefurnishings.....	152.3	151.9	128.5	+0.3	+18.5	Housefurnishings.....	148.7	147.2	133.9	+1.0	+11.1
Sundries.....	136.7	135.9	123.3	+0.6	+10.9	Sundries.....	136.9	136.3	124.9	+0.4	+9.6
Weighted Total.....	154.9	153.0	129.0	+1.2	+20.1	Weighted Total.....	150.8	149.4	129.8	+0.9	+16.2
Muskegon						Pittsburgh					
Food.....	242.9	239.8	177.2	+1.3	+37.1	Food.....	201.5	198.4	147.7	+1.6	+36.4
Housing ¹	115.2	115.2	115.2	0	0	Housing ¹	105.8	105.8	105.7	0	+0.1
Clothing.....	144.6	144.7	132.1	-0.1	+9.5	Clothing.....	146.3	145.7	133.5	+0.4	+9.6
Fuel and light.....	137.7	134.9	120.2	+2.1	+14.6	Fuel and light.....	123.8	119.0	114.0	+4.0	+8.6
Housefurnishings.....	139.9	138.7 _r	122.6	+0.9	+14.1	Housefurnishings.....	138.0	138.5	126.7	-0.4	+8.9
Sundries.....	138.1	137.1	128.4	+0.7	+7.6	Sundries.....	135.5	135.0	123.1	+0.4	+10.1
Weighted Total.....	164.0	162.6	139.0	+0.9	+18.0	Weighted Total.....	151.9	150.4	128.5	+1.0	+18.2
Newark						Portland, Ore.					
Food.....	191.5	186.7	148.2	+2.6	+29.2	Food.....	207.6	202.5	149.6	+2.5	+38.8
Housing ¹	101.4	101.4	101.4	0	0	Housing ¹	110.0	110.0	110.0	0	0
Clothing.....	143.9	144.9	131.2	-0.7	+9.7	Clothing.....	160.1	162.5	144.9	-1.5	+10.5
Fuel and light.....	105.4	104.8	104.3	+0.6	+0.6	Fuel and light.....	121.9	128.0	124.9	-4.8	-2.4
Housefurnishings.....	162.9	162.5	140.3	+0.2	+16.1	Housefurnishings.....	138.5	138.4	123.9	+0.1	+11.8
Sundries.....	129.3	128.8	121.9	+0.4	+6.1	Sundries.....	128.9	128.1	124.3	+0.6	+3.7
Weighted Total.....	148.0	146.1	128.2	+1.3	+15.4	Weighted Total.....	153.2	152.0	132.1	+0.8	+16.0
New Haven						Providence					
Food.....	204.5	204.6	143.3	a	+42.7	Food.....	205.6	201.5	155.6	+2.0	+32.1
Housing ¹	105.3	105.3	105.3	0	0	Housing ¹	103.3	103.3	103.3	0	0
Clothing.....	151.7	151.9	137.6	-0.1	+10.2	Clothing.....	148.8	148.9 _r	141.2	-0.1	+5.4
Fuel and light.....	118.3	117.3	110.5	+0.9	+7.1	Fuel and light.....	121.9	121.1	111.9	+0.7	+8.9
Housefurnishings.....	143.2	143.2	129.9	0	+10.2	Housefurnishings.....	128.1	126.9	127.4	+0.9	+0.5
Sundries.....	124.3	123.6	112.4	+0.6	+10.6	Sundries.....	139.1	138.9	126.4	+0.1	+10.0
Weighted Total.....	149.4	149.2	123.8	+0.1	+20.7	Weighted Total.....	152.8	151.4	131.5	+0.9	+16.2
New Orleans						Richmond					
Food.....	210.1	210.5	153.5	-0.2	+36.9	Food.....	232.3	229.5	163.3	+1.2	+42.3
Housing ¹	110.6	110.6	110.6	0	0	Housing ¹	103.4	103.4	103.1	0	+0.3
Clothing.....	153.1	152.8	138.3	+0.2	+10.7	Clothing.....	151.8	152.1	133.2	-0.2	+14.0
Fuel and light.....	85.2	84.5	85.9	+0.8	-0.8	Fuel and light.....	118.4	112.4	106.7	+5.3	+11.0
Housefurnishings.....	157.4	153.7	130.0	+2.4	+21.1	Housefurnishings.....	160.2	158.8	123.7	+0.9	+29.5
Sundries.....	131.5	131.4	123.8	+0.1	+6.2	Sundries.....	125.3	124.6	120.1	+0.6	+4.3
Weighted Total.....	158.7	158.6	132.6	+0.1	+19.7	Weighted Total.....	156.7	155.2	130.4	+1.0	+20.2
New York						Roanoke, Va.					
Food.....	192.3	187.3	146.7	+2.7	+31.1	Food.....	207.3	204.9	151.4	+1.2	+36.9
Housing ¹	100.8	100.8	100.8	0	0	Housing ¹	123.9	123.9	122.4	0	+1.2
Clothing.....	148.9	149.2	135.9	-0.2	+9.6	Clothing.....	160.8	161.0 _r	137.6	-0.1	+16.9
Fuel and light.....	109.9	109.2	108.4	+0.6	+1.4	Fuel and light.....	132.3	122.2	113.9	+8.3	+16.2
Housefurnishings.....	149.6	149.4	135.3	+0.1	+10.6	Housefurnishings.....	147.8	149.1	133.3	-0.9	+10.9
Sundries.....	138.8	138.8 _r	126.7	0	+9.6	Sundries.....	136.6	135.8	123.6	+0.6	+10.5
Weighted Total.....	150.0	148.2	128.8	+1.2	+16.5	Weighted Total.....	158.0	156.3 _r	132.8	+1.1	+19.0
Omaha						Rochester					
Food.....	216.1	215.8	154.5	+0.1	+39.9	Food.....	211.2	208.3	154.6	+1.4	+36.6
Housing ¹	100.6	100.6	100.6	0	0	Housing ¹	103.9	103.9	103.9	0	0
Clothing.....	148.7	148.7	133.0	0	+11.8	Clothing.....	155.2	155.6	139.1	-0.3	+11.6
Fuel and light.....	124.2	118.5 _r	109.0	+4.8	+13.9	Fuel and light.....	134.9	133.5	123.4	+1.0	+9.3
Housefurnishings.....	165.2	164.8	146.4	+0.2	+12.8	Housefurnishings.....	173.9	171.4	143.1	+1.5	+21.5
Sundries.....	137.1	134.8	124.3	+1.7	+10.3	Sundries.....	143.1	141.4 _r	132.2	+1.2	+8.2
Weighted Total.....	155.1	153.7	129.5	+0.9	+19.8	Weighted Total.....	156.4	154.9 _r	133.0	+1.0	+17.6

¹Rents surveyed twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.
a Less than 0.1%.

r Revised.

CONSUMERS' PRICE INDEXES FOR SIXTY CITIES—Continued

Source: THE CONFERENCE BOARD

NOTE: These indexes do NOT show intercity differences in price level or standards of living. They show only changes in consumers' prices in each city, which changes may be compared with those for other cities.

CITY	Index Numbers Jan., 1939=100			Percentage Changes		CITY	Index Numbers Jan., 1939=100			Percentage Changes	
	July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947		July 1947	June 1947	June 1946	June 1947 to July 1947	June 1946 to July 1947
Rockford, Ill.						Spokane					
Food.....	214.4	212.7	155.8	+0.8	+37.6	Food.....	194.2	193.8	148.3	+0.2	+31.0
Housing ¹	138.1	138.1	138.1	0	0	Housing ¹	102.0	102.0	102.0	0	0
Clothing.....	145.4	145.8	133.9	-0.3	+8.6	Clothing.....	137.1	140.2	125.4	-2.2	+9.3
Fuel and light.....	126.0	124.8	114.7	+1.0	+9.9	Fuel and light.....	142.8	134.5	134.9	+6.2	+5.9
Housefurnishings.....	149.5	149.5	138.2	0	+8.2	Housefurnishings.....	136.5	136.5	132.7	0	+2.9
Sundries.....	138.6	137.3	124.5	+0.9	+11.3	Sundries.....	134.1	133.3	124.6	+0.6	+7.6
Weighted Total.....	161.7	160.8	137.3	+0.6	+17.8	Weighted Total.....	149.6	148.6	130.2	+0.7	+14.9
Sacramento						Syracuse					
Food.....	209.0	204.6	152.1	+2.2	+37.4	Food.....	207.0	203.5	150.2	+1.7	+37.8
Housing ¹	105.7	105.7	105.7	0	0	Housing ¹	116.3	116.3	116.3	0	0
Clothing.....	161.1	162.5	144.6	-0.9	+11.4	Clothing.....	155.4	155.0	139.2	+0.3	+11.6
Fuel and light.....	77.0	77.0	76.8	0	+0.3	Fuel and light.....	181.8	181.4	123.8	+0.3	+6.5
Housefurnishings.....	165.7	165.8	144.8	-0.1	+14.4	Housefurnishings.....	155.9	155.1	134.1	+0.5	+16.3
Sundries.....	133.3	131.2	126.0	+1.6	+5.8	Sundries.....	130.8	129.9	118.2	+0.7	+10.7
Weighted Total.....	152.7	150.9	130.6	+1.2	+16.9	Weighted Total.....	153.6	152.3	130.4	+0.9	+17.8
St. Louis						Toledo					
Food.....	197.8	194.1	151.2	+1.9	+30.8	Food.....	207.5	204.3	151.6	+1.6	+36.9
Housing ¹	105.8	105.8	105.8	0	0	Housing ¹	113.1	113.1	113.1	0	0
Clothing.....	144.9	144.9	133.0	0	+8.9	Clothing.....	151.2	150.7	136.0	+0.3	+11.2
Fuel and light.....	127.1	127.1	118.7	0	+7.1	Fuel and light.....	128.0	119.8	110.1	+6.8	+16.3
Housefurnishings.....	145.1	144.7	122.7	+0.3	+18.3	Housefurnishings.....	142.4	141.2	129.9	+0.8	+9.6
Sundries.....	129.4	128.3	121.3	+0.9	+6.7	Sundries.....	144.9	142.5	135.4	+1.7	+7.0
Weighted Total.....	150.2	148.7	129.7	+1.0	+15.8	Weighted Total.....	157.7	155.3	134.4	+1.5	+17.3
St. Paul						Wausau, Wis.					
Food.....	210.0	206.2	146.2	+1.8	+43.6	Food.....	224.1	219.4	160.6	+2.1	+39.5
Housing ¹	100.9	100.9	100.9	0	0	Housing ¹	102.7	102.7	102.7	0	0
Clothing.....	145.5	145.5	128.6	0	+13.1	Clothing.....	171.9	174.1	161.1	-1.3	+13.8
Fuel and light.....	123.5	118.3	108.0	+4.4	+14.4	Fuel and light.....	120.8	120.3	107.7	+0.4	+12.2
Housefurnishings.....	165.3	165.4	138.9	-0.1	+19.0	Housefurnishings.....	144.7	145.8	129.4	-0.8	+11.8
Sundries.....	137.2	136.4	124.3	+0.6	+10.4	Sundries.....	131.9	130.0	119.2	+1.5	+10.7
Weighted Total.....	153.5	151.8	126.5	+1.1	+21.3	Weighted Total.....	157.3	155.7	131.3	+1.0	+19.8
San Francisco - Oakland						Wilmington, Del.					
Food.....	204.4	199.9	151.9	+2.3	+34.6	Food.....	190.0	184.3	144.7	+3.1	+31.3
Housing ¹	100.9	100.9	100.9	0	0	Housing ¹	104.9	104.9	104.9	0	0
Clothing.....	151.7	150.8	136.0	+0.6	+11.5	Clothing.....	154.7	154.2	138.7	+0.3	+11.5
Fuel and light.....	88.1	88.1	85.1	0	+3.5	Fuel and light.....	113.2	112.7	107.2	+0.4	+5.6
Housefurnishings.....	146.9	148.9	128.0	-1.3	+14.8	Housefurnishings.....	156.7	156.5	127.9	+0.1	+22.5
Sundries.....	141.3	140.4	133.2	+0.6	+6.1	Sundries.....	127.2	126.1	117.8	+0.9	+8.0
Weighted Total.....	154.1	152.3	132.1	+1.2	+16.7	Weighted Total.....	149.8	147.4	127.7	+1.6	+17.3
Seattle						Youngstown					
Food.....	203.9	198.8	157.3	+2.6	+29.6	Food.....	210.1	207.5	160.8	+1.3	+31.1
Housing ¹	106.5	106.5	106.5	0	0	Housing ¹	105.6	105.6	105.6	0	0
Clothing.....	141.6	141.6	129.1	0	+9.7	Clothing.....	157.0	157.1	147.2	-0.1	+6.7
Fuel and light.....	118.9	116.9	111.4	+1.7	+6.7	Fuel and light.....	124.8	118.2	109.4	+5.6	+14.1
Housefurnishings.....	150.4	150.7	126.3	-0.2	+19.1	Housefurnishings.....	151.3	151.7	138.6	-0.3	+9.2
Sundries.....	126.9	126.2	122.1	+0.6	+3.9	Sundries.....	126.6	126.2	117.9	+0.3	+7.4
Weighted Total.....	150.1	148.1	131.0	+1.4	+14.6	Weighted Total.....	152.8	151.4	132.4	+0.9	+15.4

¹Rents surveyed twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.

^rRevised.

PERCENTAGE CHANGES IN INDEXES FOR SIX CITIES

	Weighted Total		Food		Housing ¹		Clothing		Fuel and Light		Housefurnishings		Sundries	
	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947	June 1947 to July 1947	June 1946 to July 1947
	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947	July 1947
Bellefonte, Pa.....	+0.8	n. a.	+2.2	n. a.	0	n. a.	-0.7	n. a.	+0.1	n. a.	+0.1	n. a.	+0.1	n. a.
Evansville, Ind.....	+1.1	+16.0	+1.6	+37.0	0	+0.7	-0.3	+3.7	+3.1	+9.0	+0.7	+13.6	+1.1	+5.6
International Falls, Minn..	+2.2	+19.5	+4.1	+38.8	0	+8.3	-0.3	+14.5	0	+10.5	+1.3	+9.7	+2.0	+8.8
Joliet, Ill. ²	+1.0	+17.4	+0.8	+36.1	0	0	+0.3	+6.7	+4.5	+12.8	0	+11.9	+1.4	+10.7
Lewistown, Pa.....	+0.1	+16.5	+0.5	+32.7	0	0	-0.2	+6.1	0	+5.4	+0.7	+9.9	-0.5	+7.9
Trenton, N. J.....	-1.0	+15.9	-2.7	+26.7	0	+0.6	+0.5	+9.4	+2.3	+2.7	-0.8	+2.9	+0.3	+14.1

¹Rents surveyed twice annually, June 15 and December 15. It is assumed no change has occurred since June 15.

²Includes Lockport and Rockdale.

n. a. Not available.

REVERE COPPER AND BRASS INCORPORATED
PAYROLL DEDUCTION AUTHORITY
REVERE — ROME DIVISION
EMPLOYEES' BENEVOLENT FUND

ROME, NEW YORK _____ 19__

In consideration of the pledges of others, I hereby subscribe to the REVERE — ROME DIVISION — EMPLOYEES' BENEVOLENT FUND in accordance with the following schedule of earnings:

Group A — Base Salary Rate up to \$43.00 per week, inclusive	Deduct 5c. per week.
Group B " " " \$43.01 to \$47.50 " " "	Deduct 10c. per week.
Group C " " " \$47.51 to \$53.50 " " "	Deduct 15c. per week.
Group D " " " \$53.51 to \$62.50 " " "	Deduct 20c. per week.
Group E " " " over \$62.50 " " "	Deduct 25c. per week.

Deductions will be adjusted with payroll rate changes.

I hereby authorize and request Revere Copper and Brass Incorporated to deduct such amounts from my earnings each week. It is understood that this fund is to be administered by the Revere—Rome Division —Office Benevolent Fund Committee. It is further understood that I may cancel this authorization only by written notice filed between March 1st and March 15th with the cancellation effective June 1st.

Signature _____

Witness _____

ROME 1138 WS 7-47

Clock No. _____

REVERE

COPPER AND BRASS INCORPORATED
ROME DIVISION

EMPLOYEES' BENEVOLENT FUND

The subscriber whose name appears at the left has contributed to the campaign of the American Red Cross, the Red Cross Community Chest, the March of Dimes, and the United Negro College Fund, by the Office Benevolent Fund Committee and has authorized the fund through his subscription to this fund.

HE OR SHE SHOULD NOT BE FURTHER SOLICITED

[Signature]
Chairman
Office Benevolent Fund Committee

SUBSCRIBER'S SIGNATURE

REVERE COPPER AND BRASS INCORPORATED
PAYROLL DEDUCTION AUTHORITY
REVERE — ROME DIVISION
EMPLOYEES' BENEVOLENT FUND

ROME, NEW YORK _____ 19__

In consideration of the pledges of others, I hereby subscribe to the REVERE — ROME DIVISION EMPLOYEES' BENEVOLENT FUND in accordance with the following schedule of earnings:

Group A — Regular Hourly Rate up to \$1.13 inc.	Deduct 15c. per week.
Group B " " " \$1.14 to \$1.23 "	Deduct 20c. per week.
Group C " " " over \$1.23 "	Deduct 25c. per week.

Piece workers will be considered in Group C

Deductions will be adjusted with payroll rate changes.

I hereby authorize and request Revere Copper and Brass Incorporated to deduct such amounts from my earnings each week. It is understood that no contribution will be due for weeks in which no pay is earned. It is further understood that this fund is to be administered by the Labor Management Committee of Rome Division. It is further understood that I may cancel this authorization only by written notice filed between March 1st and March 15th with the cancellation effective June 1st.

Signature _____

Witness _____

ROME 1138 M 7-47

Clock No. _____

REVERE

COPPER AND BRASS INCORPORATED
ROME DIVISION

EMPLOYEES' BENEVOLENT FUND

The subscriber whose name appears at the left has contributed to the campaign of the American Red Cross, the Red Cross Community Chest, the March of Dimes, and the United Negro College Fund, by the Office Benevolent Fund Committee and has authorized the fund through his subscription to this fund.

HE OR SHE SHOULD NOT BE FURTHER SOLICITED

[Signature]
Chairman
Labor Management Committee

SUBSCRIBER'S SIGNATURE

The Revere Plan for Charitable Contributions

WHEN local drives for charities, such as the Red Cross and community chest, were conducted, the Rome (New York) Division of Revere Copper and Brass Incorporated wanted always to do its part.

The job of solicitation of employees and looking after their contributions, however, fell to management, which the latter felt was a wrong approach. A campaign conducted by management representatives had the flavor of compulsion, which might lead to resentment not only toward management but toward the agencies themselves. Furthermore, there was no pattern by which an individual might judge the extent of his duty. The campaigns were wasteful of time of workers and management.

A frank discussion of the matter was held with representatives of the employees, and from it developed a plan for a benevolent fund supported by payroll deductions. Inaugurated early in 1945, the fund idea has amply demonstrated its value. Revere employees appreciate the new way of contributing their share to welfare projects.

When the plan was first put into effect, employees were asked to sign cards authorizing payroll deductions based upon their rates of pay. New employees are asked to sign such cards at the time of employment.

In the mill, the Benevolent Fund is administered by a labor-management committee consisting of the works manager, the assistant works manager and the personnel manager of the company and the president and treasurer of Local 1, IMWU, the president of Local 10, IMWU, and the representative of the machine shop committee. The Office Benevolent Fund is administered by a committee made up of representatives of the employees and of management. A responsible official of the company serves as treasurer of both funds.

Deductions in the case of wage earners are as follows: those earning up to \$1.13 an hour pay, inclusive, 15 cents a week; those earning from \$1.14 to \$1.23, inclusive, contribute 20 cents weekly; and those who earn \$1.24 an hour or more give 25 cents a week.

The large cards on the opposite page are reproductions of two of the pledge cards used in administering the Employees' Benevolent Fund of Revere Copper and Brass Incorporated, Rome Division. A pledge is effective for one year and thereafter until the employee cancels his request for the payroll deduction or the plan is discontinued. The smaller cards are identification cards which subscribers may show, should they be solicited outside for charitable contributions.

Pieceworkers are classified with the last group. Deductions are adjusted with payroll rate changes, and it is understood that no contribution is due for weeks in which no pay is earned.

The deduction for salaried workers on the weekly payroll whose base salary rate is up to \$43.00 a week, inclusive, is 5 cents a week; for those who receive from \$43.01 to \$47.50, 10 cents; for those who are paid \$47.51 to \$53.50, 15 cents; for those whose rate is \$53.51 to \$62.50, 20 cents; and for those who receive over \$62.50, 25 cents a week.

The deduction for monthly salaried workers whose base salary rate is up to \$6,500 a year, inclusive, is $\frac{1}{2}$ of 1%. For those who receive more than \$6,500 a year, the deduction is $\frac{3}{4}$ of 1%. As in the other two groups, deductions are adjusted with payroll rate changes.

NINETY-SEVEN PER CENT SIGN UP

During its first year of operation, 97% of the plant employees signed up for the plan. When charitable drives come along, the Benevolent Fund votes sums for its members, and those who are not members are individually solicited for either cash contributions or payroll deduction contributions. In addition to the Red Cross and community chest, some of the charities that have been supported by the fund have been the Disabled Veterans, Association for the Blind, March of Dimes and the USO.

For the past two years, the fund has made it possible to distribute baskets of fruit to members who have been confined by illness to their homes at Christmas time. Flowers are sent in the instance of death of subscribers to the fund or their near relatives—fathers, mothers, sisters, brothers, wives or children. A recently added activity is aid to Revere employees, should they encounter extreme hardship.

Regular subscribers are provided with identification cards which are recognized by all charitable organizations and prevent further solicitation of the members. Suitable emblems of various campaigns are available for members at the company's personnel office at the time drives take place in other plants. Notices of what has been contributed through the Benevolent Fund are posted on bulletin boards, and a complete financial statement of the fund's transactions is published each year in the February issue of the company magazine, the *Revere Patriot*.

GENEVA SEYBOLD
Management Research Division

Payroll Statistics in Manufacturing

OF ALL the payroll statistics for production workers in the twenty-five manufacturing industries surveyed by THE CONFERENCE BOARD, only hourly earnings were higher in July than in June. All the others—real hourly earnings, actual and real weekly earnings, actual and nominal hours, employment, total man hours and payrolls—declined over the month. Reported wage-rate increases amounted to only 0.3% for all workers, with only three industries reporting increases averaging more than 1% for all the workers in the industry.

The largest increase was in the meat-packing industry where reports indicated that 45.8% of the workers received average increases of 5.2%.

This month a special table is included, showing, as of July, the distribution of plants from which data are received for this survey. It will be seen that, of the more than 2,000 plants included in the survey, 1,864 are in the twenty-five industries.

EARNINGS AND HOURS

Although hourly earnings rose from June to July and were at a new peak level for the seventeenth consecutive month, the increase over the month was only 0.4%. In October, 1945, hourly earnings were at their lowest point following the end of the war, and they have risen in each of the twenty-one months since that time. Seventeen of these twenty-one increases were larger than the 0.4% rise from June to July. The total increase from October, 1945, to this July was 25.3%.

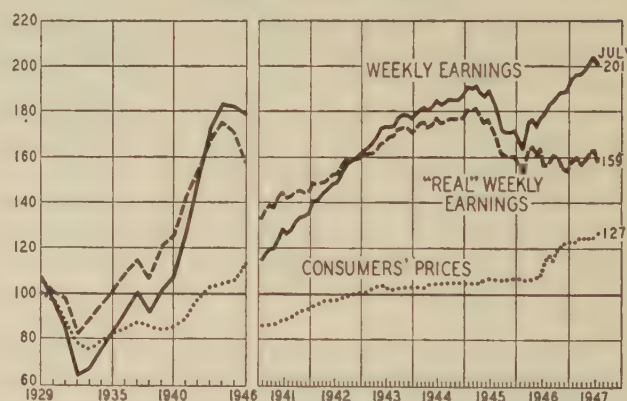
Six industries showed lower hourly earnings in July than in the preceding month, the decreases ranging from 0.1% in the rubber industry to 2.4% in news and

magazine printing. In this latter industry, working hours were reduced from 40.7 in June to 38.8 in July, with a resultant loss of premium payments for overtime work. The hourly earnings of the workers in the book and job printing industry were unchanged from June to July and the remaining industries showed increases ranging from 0.1% to 2.3%.

Weekly earnings in July declined 1.2% from their peak level of June, the first decline in this series since that from April to May, 1946. The July average was

Average Weekly Earnings in 25 Manufacturing Industries

Source: THE CONFERENCE BOARD
Index Numbers, 1923 = 100



also slightly lower than that of May, 1947, but it was higher than during any other month since this survey was begun. Since August, 1939, the last month before the start of the war in Europe, weekly earnings have been increased 96.4%. Changes in the individual industries over the month from June to July ranged from a decline of 6.8% in news and magazine printing to an increase of 4.3% in the meat-packing industry. The iron and steel and automobile industries showed declines of 6.3% and 6.2% respectively.

After rising for three months, real weekly earnings dropped 2.1% from June to July. In the latter month, this measure of actual earnings adjusted for changes in the consumers' price index in terms of 1923 dollars, was still 1.9% greater than last July, and 30.4% more than during the last month before the beginning of the war. Unlike actual weekly earnings, which have shown a definite upward trend since the first months of 1946, real weekly earnings have varied so widely from month to month that no trend can be clearly discerned.

Wage-rate Increases and Workers Affected

Source: THE CONFERENCE BOARD

Date	25 Manufacturing Industries	
	Production Workers Affected	Wage-rate Increase
1946 July.....	2.9%	8.5%
August.....	5.5	9.6
September.....	1.8	8.0
October.....	1.9	8.0
November.....	2.7	7.3
December.....	1.8	7.9
1947 January.....	4.1	8.6
February.....	3.4	10.6
March.....	1.5	7.0
April.....	6.8	7.2
May.....	18.5	9.1
June.....	8.6	8.7
July.....	4.5	7.2

EARNINGS, HOURS, EMPLOYMENT, PAYROLLS, PRODUCTION WORKERS, TWENTY-FIVE MANUFACTURING INDUSTRIES

NOTE: Hourly earnings are not wage rates, because they include overtime and other monetary compensation

Date	Average Hourly Earnings	Average Weekly Earnings	Average Actual Hours per Week per Production Worker	Average Nominal Hours per Week per Production Worker	Index Numbers, 1923 = 100							
					Hourly Earnings		Weekly Earnings		Actual Hours per Week per Production Worker	Employ- ment	Total Man Hours	Payrolls
					Actual	Real	Actual	Real				
1946 July.....	\$1.194	\$47.64	40.0	41.2	220.7	192.8	179.0	156.3	81.3	119.1	96.8	213.2
August.....	1.217	48.74	40.1	41.1	225.0	192.8	183.2	156.6	81.5	121.1	98.7	221.9
September.....	1.229	49.14	40.0	41.1	227.2	198.3	184.7	161.2	81.3	122.7	99.8	226.6
October.....	1.231	49.79	40.4	41.0	227.5	189.6	187.1	155.9	82.1	123.2	101.1	230.5
November.....	1.243	50.14	40.4	41.0	229.8	189.3	188.4	155.2	82.1	125.8	103.3	237.0
December.....	1.247	50.23	40.4	41.0	230.5	187.1	188.8	153.2	82.1	126.1	103.5	238.1
1947 January.....	1.268	51.62	40.8	41.0	234.4	190.6	194.0	157.7	82.9	127.1	105.4	246.6
February.....	1.279	52.10	40.8	41.0	236.4	192.7	195.8	159.6	82.9	128.8	106.8	252.2
March.....	1.285	52.10	40.6	41.0	237.5	190.2	195.8	156.8	82.5	128.8	106.3	252.2
April.....	1.304	52.79	40.5	41.0	241.0	193.1	198.4	159.0	82.3	128.6	105.8	255.1
May.....	1.329	53.65	40.4	41.0	245.7	197.2	201.6	161.8	82.1	127.9	105.0	257.8
June.....	1.347 ^r	54.25	40.3	41.0	249.0 ^r	198.6 ^r	203.9	162.6	81.9	127.4	104.3	259.8
July.....	1.352	53.60	39.7	40.9	249.9	197.5	201.4	159.2	80.7	125.0	100.9	251.8

See footnotes on page 286.

^rRevised

EARNINGS AND HOURS, PRODUCTION WORKERS, JULY, 1947

NOTE: Hourly earnings are not wage rates, because they include overtime and other monetary compensation

INDUSTRY	Average Earnings in Dollars				Average Hours per Week per Production Worker			
	Hourly		Weekly		Actual		Nominal	
	July	June	July	June	July	June	July	June
Agricultural implement.....	1.423	1.418	57.29	57.69	40.2	40.7	40.3	40.1
Automobile ¹	1.508	1.497 ^r	54.91	58.52 ^r	36.4	39.1 ^r	40.0	40.0
Boot and shoe.....	1.039	1.042 ^r	40.30	40.46 ^r	38.8	38.8 ^r	40.6	40.4
Chemical.....	1.410	1.400	53.46	54.24	37.9	38.7	40.3	40.4
Rayon producing ²	1.224	1.219 ^r	47.18	46.86 ^r	38.5	38.5 ^r	40.2	40.2
Cotton—North.....	1.093	1.090	43.98	44.89	40.2	41.2	42.1	43.2
Electrical manufacturing.....	1.399	1.391	56.37	56.16	40.3	40.4	40.3	40.4
Furniture ³	1.267	1.273	52.08	51.91	41.1	40.8	42.3	42.1
Hosiery and knit goods.....	1.056	1.054	40.87	40.19	38.7	38.1	41.0	41.1
Iron and steel ⁴	1.539	1.547	55.25	58.94	35.9	38.1	40.7	40.7
Leather tanning and finishing.....	1.316	1.286	55.15	53.70	41.9	41.7	42.8	41.6
Lumber and millwork.....	1.459	1.451	61.06	60.92	41.9	42.0	41.5	41.5
Meat packing.....	1.254	1.226	56.25	53.91	44.8	44.0	40.2	40.2
Paint and varnish.....	1.292	1.291	52.64	51.92	40.8	40.2	41.5	41.5
Paper and pulp.....	1.251	1.230	55.31	54.22	44.2	44.1	41.6	41.6
Paper products.....	1.164	1.146	47.89	47.82	41.1	41.7	42.4	42.4
Printing—book and job.....	1.451	1.451	61.32	61.90	42.3	42.7	42.3	42.4
Printing—news and magazine.....	1.700	1.741	66.01	70.82	38.8	40.7	40.0	39.9
Rubber.....	1.521	1.522	57.24	57.98	37.6	38.1	38.0	38.4
1. Rubber tires and tubes.....	1.670	1.663	61.62	62.22	36.9	37.4	37.4	38.0
2. Other rubber products.....	1.282	1.288	49.82	50.59	38.9	39.3	39.1	39.1
Silk and rayon.....	1.143	1.153	47.08	47.11	41.2	40.9	40.7	40.7
Wool.....	1.209	1.205	48.65	48.77	40.2	40.5	40.4	40.6
1. Woolen and worsted goods.....	1.205	1.202	47.93	48.27	39.8	40.1	40.4	40.9
2. Other woolen products ⁵	1.213	1.209	49.57	49.44	40.9	40.9	40.2	40.3
Foundries and machine shops.....	1.376	1.365	55.18	55.10 ^r	40.1	40.4	41.1	41.0
1. Foundries.....	1.395	1.372	56.13	54.89	40.2	40.0	40.4	40.4
2. Machines and machine tools.....	1.372	1.356	55.86	55.36	40.7	40.8	41.1	41.0
3. Heavy equipment.....	1.409	1.408	57.07	57.82 ^r	40.5	41.1 ^r	41.8	41.6
4. Hardware and small parts.....	1.313	1.294	52.89	52.37	40.3	40.5	41.1	41.0
5. Other products.....	1.380	1.372	54.37	54.54	39.4	39.8	40.7	40.7
25 INDUSTRIES.....	1.352	1.347 ^r	53.60	54.25	39.7	40.3	40.9	41.0
Cement.....	1.191	1.166	47.57	47.01	39.9	40.3	40.0	40.0
Petroleum refining.....	1.612	1.604	64.97	64.80	40.3	40.4	40.2	40.2
27 INDUSTRIES.....	1.354	1.349 ^r	53.70	54.34	39.7	40.3	40.9	40.9
Aircraft.....	1.447	1.407	58.60	55.50	40.5	39.4	40.3	40.3
Shipbuilding.....	1.454	1.451	57.25	57.71	39.4	39.8	40.3	40.3

See footnotes on page 286.

Working hours declined from June to July, the fifth consecutive monthly decline. This last drop amounted to 0.6 hour, or 1.5%, the largest change in either direction since the 2.7% decline from April to May, 1946. Except for two months in 1946, the work week in July was shorter than at any time since November, 1940. Sixteen industries reported declines in working hours from June to July, the two largest being those of 2.7 hours in the automobile industry, and 2.2 hours in iron and steel plants. Workers in the meat-packing industry increased their work week by 0.8 hour, bringing the average in July to 44.8 hours, the longest of any of the twenty-five industries.

After averaging exactly forty-one hours for nine months in succession, nominal hours, or the scheduled number of hours of operation of a plant, shift or department, dropped 0.1 hour in July. This made the average in July 3.5 hours less than the nominal week of the early part of 1945.

EMPLOYMENT

In April of this year employment turned downward, after displaying a definite upward trend since the end of the war. The declines in the four months since March of this year left the index, in July, 3% below

that of March, and only 5% greater than the previous July. It was lower than during any of the months from July, 1941, through June, 1945. Only seven industries increased the number of employed workers from June to July. The chemical industry employed 3.5% more workers in July than in the previous month, and meat-packing plants 2.4% more. Two others—news and magazine printing, and paper products—increased their employment more than 1%. The iron and steel industry showed no measurable change over the month. Of the seventeen industries in which employment declined, eight had decreases amounting to more than 2%. The largest was 11.9% in the furniture industry, and the next 6.6% in the last group under foundries and machine shops. Employment in the automobile industry dropped 5.5% from June to July.

PAYROLLS

Payrolls have risen sharply since the early months of 1946, but declined 3.1% from June to July of this year. Despite this decrease, they were only 8.7% below the peak which they reached in November, 1943. Employment, which was also at its peak during that month, has declined 18.9% since then. Payrolls

EARNINGS, EMPLOYMENT, MAN HOURS, AND PAYROLLS, PRODUCTION WORKERS, JULY, 1947

Index Numbers, 1923=100

NOTE: Hourly earnings are not wage rates, because they include overtime and other monetary compensation

INDUSTRY	Average Earnings						Employment		Total Man Hours Worked		Payrolls	
	Hourly, Actual		Weekly									
			Actual		Real							
	July	June	July	June	July	June	July	June	July	June	July	June
Agricultural implement.....	255.9	255.0	208.3	209.7	164.7	167.2	196.9	197.0	159.9	161.9	410.1	413.1
Automobile ¹	238.6	236.9 _r	182.2	194.2 _r	144.0	154.9 _r	129.7	137.2 _r	99.0	112.5	236.3	266.4 _r
Boot and shoe.....	197.9	198.5 _r	167.1	167.7 _r	132.1	133.7 _r	103.2	102.8 _r	87.2	86.9 _r	172.4	172.4 _r
Chemical.....	277.6	275.6	207.5	210.6	164.0	167.9	202.5	195.7	151.7	149.7	420.2	412.1
Cotton—North.....	245.6	244.9	207.1	211.3	163.7	168.5	41.5	43.1 _r	34.9	37.2 _r	85.9	91.1 _r
Electrical manufacturing.....	246.3	244.9	208.1	207.3	164.5	165.3	264.7	268.4	223.1	226.8	550.8	556.4
Furniture ²	245.1	246.2	208.8	208.1	165.1	165.9	106.4	120.8	90.8	102.2	222.2	251.4
Hosiery and knit goods.....	276.4	275.9	231.3	227.4	182.8	181.3	88.2	88.3	73.7	72.7	204.0	200.8
Iron and steel ⁴	258.2	259.6	161.5	172.2	127.7	137.3	127.8	127.8	79.5	84.3	206.4	220.1
Leather tanning and finishing.....	270.8	264.6	238.1	231.9	188.2	184.9	71.1	72.3	62.6	63.3	169.3	167.7
Lumber and millwork.....	308.5	306.8	260.7	260.1	206.1	207.4	55.8	56.0	47.2	47.5	145.5	145.7
Meat packing.....	265.1	259.2	239.0	229.0	188.9	182.6	106.5	104.0	96.0	92.0	254.5	238.2
Paint and varnish.....	229.5	229.3	200.5	197.8	158.5	157.7	170.6	172.6	149.1	148.6	342.1	341.4
Paper and pulp.....	248.2	244.0	212.1	207.9	167.7	165.8	145.5	147.7	124.1	125.7	308.6	307.1
Paper products.....	254.7	250.8	214.3	214.0	169.4	170.7	189.9	187.9	160.7	161.2	407.0	402.1
Printing—book and job.....	222.2	222.2	204.7	206.7	161.8	164.8	153.1	152.6	141.2	141.9	313.4	315.4
Printing—news and magazine.....	245.3	251.2	211.4	226.8	167.1	180.9	147.6	145.9	127.2	131.9	312.0	330.9
Rubber.....	243.0	243.1	204.2	206.8	161.4	164.9	142.0	145.2	119.1	123.4	290.0	300.3
Silk and rayon.....	230.4	232.5	204.4	204.6	161.6	163.2	91.3	92.3	80.9	81.2	186.6	188.8
Wool.....	239.4	238.6	203.0	203.5	160.5	162.3	80.8	83.4	68.4	71.1	164.0	169.7
Foundries and machine shops.....	240.1	238.2	194.5	194.2 _r	153.8	154.9 _r	140.8	145.7	113.8	118.7	273.9	282.9 _r
1. Foundries.....	236.4	232.5	189.6	185.4	149.9	147.8	158.0	159.3	126.6	127.0	299.6	295.3
2. Machines and machine tools.....	249.9	247.0	204.6	202.8	161.7	161.7	137.9	140.8	112.7	115.3	282.1	285.5
3. Heavy equipment.....	210.3	210.1	172.8	175.1 _r	136.6	139.6 _r	112.0	111.6	92.1	93.1 _r	193.5	195.4 _r
4. Hardware and small parts.....	256.4	252.7	213.2	211.1	168.5	168.3	145.4	151.8	120.8	126.8	310.0	320.4
5. Other products.....	246.4	245.0	198.9	199.6	157.2	159.2	144.0	154.1	116.2	125.7	286.4	307.6
25 INDUSTRIES.....	249.9	249.0 _r	201.4	203.9	159.2	162.6	125.0	127.4	100.9	104.3	251.8	259.8

NOTE: No basic 1923 data are available, hence no indexes are given for the following: Rayon producing, rubber tires and tubes, other rubber products, woolen and worsted goods, other woolen products, cement, petroleum refining, "27 industries," aircraft and shipbuilding.
See footnotes on page 286.

EARNINGS AND HOURS, MALE AND FEMALE PRODUCTION WORKERS, JULY, 1947

NOTE: Hourly earnings are not wage rates, because they include overtime and other monetary compensation

INDUSTRY	All Male						Female					
	Average Earnings in Dollars				Average Hours per Week per Production Worker		Average Earnings in Dollars				Average Hours per Week per Production Worker	
	Hourly		Weekly		July	June	Hourly		Weekly		July	June
	July	June	July	June			July	June	July	June		
Agricultural implement.....	1.429	1.424	57.57	57.99	40.3	40.7	1.266	1.251	49.56	49.56	39.1	39.6
Automobile ¹	1.532	1.520 _r	56.00	59.62 _r	36.5	39.2 _r	1.297	1.301 _r	45.77	49.44 _r	35.3	38.0 _r
Boot and shoe.....	1.176	1.182 _r	45.91	46.47 _r	39.0	39.3 _r	.896	.894 _r	34.56	34.29 _r	38.6	38.3 _r
Chemical.....	1.470	1.458	56.06	56.92	38.1	39.0	1.028	1.028	37.64	38.08	36.6	37.0
Rayon producing ²	1.276	1.270 _r	49.80	49.42 _r	39.0	38.9 _r	1.060	1.055 _r	39.27	39.07 _r	37.1	37.1 _r
Cotton—North.....	1.160	1.157	48.83	49.76	42.1	43.0	.989	.989	37.15	38.25	37.6	38.7
Electrical manufacturing.....	1.485	1.480	61.20	61.10	41.2	41.3	1.154	1.144	43.76	43.53	37.9	38.1
Furniture ³	1.301	1.307	53.70	53.65	41.3	41.1	1.005	1.011	39.97	39.30	39.8	38.9
Hosiery and knit goods.....	1.415	1.385	55.99	53.09	39.6	38.3	.884	.898	33.85	34.20	38.3	38.1
Iron and steel ⁴	1.544	1.552	55.45	59.18	35.9	38.1	1.168	1.155	40.85	42.02	35.0	36.4
Leather tanning and finishing.....	1.341	1.315	56.69	55.51	42.3	42.2	1.156	1.100	45.97	42.90	39.8	39.0
Lumber and millwork.....	1.474	1.466	61.89	61.70	42.0	42.1	1.052	1.051	40.98	41.40	39.0	39.4
Meat packing.....	1.290	1.264	58.81	56.60	45.6	44.8	1.071	1.028	44.39	41.44	41.5	40.3
Paint and varnish.....	1.309	1.311	53.59	52.87	40.9	40.3	1.003	.971	38.21	37.53	38.1	38.7
Paper and pulp.....	1.269	1.249	56.50	55.40	44.5	44.4	.936	.915	36.82	36.40	39.4	39.8
Paper products.....	1.264	1.246	53.47	53.63	42.3	43.0	.911	.900	35.00	34.98	38.4	38.9
Printing—book and job.....	1.653	1.651	71.85	72.57	43.5	43.9	.970	.964	38.46	38.42	39.7	39.9
Printing—news and magazine.....	1.814	1.852	70.70	76.05	39.0	41.1	1.006	1.018	38.12	39.08	37.9	38.4
Rubber.....	1.630	1.628	61.92	62.03	38.0	38.5	1.142	1.142	41.64	42.00	36.5	36.8
1. Rubber tires and tubes.....	1.724	1.719	64.19	65.04	37.2	37.8	1.321	1.306	46.03	45.69	34.9	35.0
2. Other rubber products.....	1.424	1.425	56.59	56.98	39.7	40.0	1.038	1.036	38.88	39.42	37.5	38.1
Silk and rayon.....	1.210	1.217	50.75	50.72	41.9	41.7	.957	.973	37.57	37.76	39.2	38.8
Wool.....	1.265	1.262	52.54	52.41	41.5	41.5	1.093	1.094	41.34	42.16	37.8	38.5
1. Woolen and worsted goods.....	1.256	1.255	51.86	51.65	41.3	41.2	1.120	1.121	41.97	43.35	37.5	38.7
2. Other woolen products ⁵	1.274	1.271	53.27	53.26	41.8	41.9	1.046	1.040	40.21	39.85	38.4	38.3
Foundries and machine shops.....	1.405	1.396	56.63	56.67 _r	40.3	40.6 _r	1.094	1.077	41.62	41.29 _r	38.1	38.3 _r
1. Foundries.....	1.401	1.379	56.45	55.21	40.3	40.0	1.159	1.145	45.55	44.60	39.3	38.9
2. Machines and machine tools.....	1.386	1.370	56.67	56.19	40.9	41.0	1.116	1.092	42.19	41.11	37.8	37.7
3. Heavy equipment.....	1.416	1.418	57.41	58.31 _r	40.6	41.1 _r	1.135	1.108	44.23	44.55 _r	39.0	40.2 _r
4. Hardware and small parts.....	1.366	1.351	55.65	55.27	40.7	40.9	1.031	1.008	39.38	38.71	38.2	38.4
5. Other products.....	1.425	1.419	56.52	56.80	39.7	40.0	1.114	1.102	42.18	42.03	37.9	38.1
25 INDUSTRIES.....	1.427	1.421 _r	57.02	57.82 _r	40.1	40.7 _r	1.006	1.005 _r	38.38	38.63 _r	38.2	38.4 _r
Cement.....	1.191	1.166	47.57	47.01	39.9	40.3	.....	.....	.....	.....	.....	.....
Petroleum refining.....	1.612	1.604	64.97	64.80	40.3	40.4	.....	.....	.....	.....	.....	.....
27 INDUSTRIES.....	1.428	1.422 _r	57.07	57.84 _r	40.1	40.7 _r	.....	.....	.....	.....	.....	.....
Aircraft.....	1.470	1.435	59.65	56.69	40.6	39.5	1.263	1.213	50.32	47.37	39.8	39.0
Shipbuilding.....	1.457	1.454	57.40	57.87	39.4	39.8	1.073	1.081	40.21	40.11	37.5	37.1

See footnotes on page 286.

in July were 187.1% greater than in August, 1939, just before the start of the war. They were exceeded only by the five preceding months of this year, and by the months from February, 1943, through April, 1945. The decline from June to July in the payrolls for the twenty-five industries combined was the result of decreases in sixteen industries, and increases in eight others, the remaining industry showing no change over the month.

CEMENT AND PETROLEUM

The hourly earnings of all workers in the cement industry rose 2.1% from June to July. All the increased earnings were in the group of skilled workers, since the unskilled men averaged slightly less in July than in the previous month. The number of unskilled workers employed also declined somewhat over the month, although this decrease was more than offset by the increase in skilled workers so that total employment rose a little. Wage-rate increases were

responsible for the increased earnings of these workers, those reported in July averaging 1.1% for all the workers in the industry. Since working hours were shorter in July than in June, weekly earnings rose less over the month than hourly earnings.

The number of workers employed in the petroleum industry was increased 2.8% from June to July. Employment in the unskilled group rose more than that of the trained workers, and, as a result, the proportion of men classified as skilled dropped from 91.3% in June to 90.9% in the next month. Neither working hours nor earnings showed much change over the month. Hourly earnings rose only 0.5%, but the \$1.612 averaged in July was the highest point reached by this series.

AIRCRAFT AND SHIPBUILDING

In the aircraft factories, many factors combined to raise the hourly earnings of the production workers. Some wage-rate increases were reported and working

DISTRIBUTION OF MANUFACTURING PLANTS SUPPLYING PAYROLL DATA TO THE CONFERENCE BOARD¹

Source: THE CONFERENCE BOARD

State and Geographic Divisions	Total	Agricultural Implement	Automobile ²	Boot and Shoe	Chemical	Cotton North	Electrical Manufacturing	Furniture	Hosiery and Knit Goods	Iron and Steel	Leather Tanning and Finishing	Lumber and Millwork	Meat Packing	Paint and Varnish	Paper and Pulp	Paper Products
United States	2,007 ^a	34	74	146	191	22	144	39	36	49	23	43	25	69	93	196
New England	350	2	27	22	14	33	1	...	2	3	4	3	1	4	23	34
Maine.....	25	...	4	4	2	...	...	...	...	...	...	...	...	...	9	...
New Hampshire.....	22	...	17	1	...	1	...	...	...	...	...	...	...	...	2	2
Vermont.....	10	...	1	1	...	1	...	...	...	...	...	...	...	...	2	2
Massachusetts.....	152	...	6	12	6	16	1	...	1	3	4	1	4	11	22	...
Rhode Island.....	31	...	1	3	3	...	...	...	...	...	...	...	...	...	1	10
Connecticut.....	110	2	3	12	...	12	...	...	1	...	...	1	...	...	1	...
Middle Atlantic	547	5	9	69	7	48	20	12	18	7	7	3	20	33	51	...
New York.....	214	4	8	19	2	9	16	7	1	1	7	...	8	21	26	...
New Jersey.....	127	2	1	28	4	15	1	...	2	2	...	1	9	5	12	...
Pennsylvania.....	206	1	22	1	24	3	5	15	4	...	2	3	7	11	...	...
East North Central	621	26	36	36	1	45	13	8	21	10	8	7	22	28	58	...
Ohio.....	178	2	4	11	...	17	5	1	10	3	1	...	7	3	15	...
Indiana.....	77	3	15	6	1	8	...	1	2	...	...	1	1	...	9	...
Illinois.....	174	14	27	7	...	12	1	1	7	3	3	5	10	1	17	...
Michigan.....	94	2	9	...	9	3	4	1	1	...	1	...	4	8	8	...
Wisconsin.....	98	5	3	5	3	5	3	4	1	4	3	1	...	16	9	...
West North Central	153	2	15	6	...	6	...	8	1	...	3	8	6	2	12	...
Minnesota.....	29	...	2	...	2	...	7	...	...	...	1	2	...	2	4	...
Iowa.....	20	2	4	...	...	...	1	...	...	...	1	3	1	...	1	...
Missouri.....	86	...	49	8	...	4	...	...	1	...	...	...	4	...	6	...
North Dakota.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Dakota.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nebraska.....	4	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...
Kansas.....	13	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...
South Atlantic	99	...	25	7	3	4	1	2	2	2	2	3	1	11	...	...
Delaware.....	7	...	3	...	...	...	...	...	...	1	...	...	2	...	...	...
Maryland.....	20	...	1	...	3	...	1	...	...	...	...	...	1	...	2	...
District of Columbia.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Virginia.....	27	...	8	...	...	...	...	...	...	2	2	...	...	1	8	...
West Virginia.....	24	...	11	2	...	3	1	1	...	...	...	...	...	...	1	...
North Carolina.....	5	...	1	2	...	...	...	...	...	...	...	...	...	...	1	...
South Carolina.....	3	...	2	...	...	2	...	...	...	...	...	...	...	...	1	...
Georgia.....	10	...	1	...	...	1	...	...	...	...	...	...	...	...	4	...
Florida.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
East South Central	72	1	22	10	...	1	...	3	5	...	1	...	2	1	3	...
Kentucky.....	16	1	4	...	...	...	...	...	...	...	...	...	...	...	2	...
Tennessee.....	32	...	17	4	...	1	...	2	1	...	1	...	1	...	...	...
Alabama.....	21	...	1	2	...	...	...	1	4	...	...	...	...	1	1	...
Mississippi.....	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
West South Central	55	1	4	...	...	...	1	...	...	2	1	4	...	...	6	...
Arkansas.....	5	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...
Louisiana.....	7	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Oklahoma.....	7	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Texas.....	36	...	3	...	...	...	...	...	...	2	2	...	2	...	5	...
Mountain	14	...	1	...	...	...	...	...	...	2	...	...	...	...	2	...
Montana.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Idaho.....	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Wyoming.....	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Colorado.....	5	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...
New Mexico.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arizona.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Utah.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Nevada.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pacific	96	1	9	4	...	4	1	1	1	1	14	1	8	5	19	...
Washington.....	17	...	1	...	...	...	...	...	...	...	8	...	...	3	2	...
Oregon.....	13	...	1	...	...	...	...	1	...	...	5	...	1	2	...	...
California.....	66	1	7	...	...	4	1	...	1	1	1	1	7	...	16	...

¹As of July, 1947, this table brings up to date figures published in *The Management Record* of February, 1946, pp. 48 and 49.

²This analysis covers only plants that report directly to THE CONFERENCE BOARD. In addition, THE CONFERENCE BOARD also receives data from the Automobile Manufacturers Association.

hours were lengthened, with a consequent increase in premium payments for overtime. Total employment was decreased 7.9%, the layoffs being presumably among the most recently hired and, therefore, lowest-

paid workers. A shift in the employment distribution also tended to raise hourly earnings. The proportion of women workers dropped from 12.8% in June to 11.3% in July, and that of the unskilled men dropped

DISTRIBUTION OF MANUFACTURING PLANTS SUPPLYING PAYROLL DATA TO THE CONFERENCE BOARD¹

Source: THE CONFERENCE BOARD

Printing Book and Job	Printing News and Magazine	Rubber	Silk and Rayon	Wool	Found- ries	Machines and Machine Tools	Heavy Equip- ment	Hardware and Small Parts	Other Foundry Prod- ucts	25 Indus- tries	Cement	Petro- leum Refin- ing	Air- craft	Ship- build- ing	Total	State and Geographic Divisions
52	33	46	29	53	79	110	77	88	113	1,864	40	55	11	37	2,007 ^a	United States
10	4	13	2	30	10	29	8	46	22	346	...	...	...	4	350	New England
1	...	...	...	2	...	1	...	...	...	24	...	...	...	1	25	Maine
1	1	...	...	1	...	1	...	...	...	22	...	...	...	...	22	New Hampshire
6	1	6	...	14	2	12	4	15	3	150	...	...	...	...	10	Vermont
...	...	4	...	10	2	8	...	5	...	31	...	...	...	2	152	Massachusetts
2	2	3	2	3	5	11	4	25	19	109	...	...	...	...	31	Rhode Island
20	6	9	26	17	15	30	22	15	39	515	14	10	...	1	110	Connecticut
11	...	4	...	6	2	13	6	2	21	201	7	2	...	8	547	Middle Atlantic
2	2	2	6	5	4	5	4	2	7	121	...	3	...	4	214	New York
7	4	3	20	6	9	12	12	11	11	193	7	5	...	3	127	New Jersey
11	7	17	...	3	49	37	34	20	37	597	5	11	...	8	206	Pennsylvania
2	2	12	...	3	19	17	8	8	8	167	2	6	...	8	621	East North Central
2	...	2	...	...	7	5	6	1	3	74	2	1	...	3	178	Ohio
5	4	1	...	...	11	9	6	8	9	166	1	4	...	8	77	Indiana
...	1	2	...	...	6	2	5	2	4	94	...	...	...	3	174	Illinois
2	...	...	...	...	6	4	9	1	13	96	...	...	...	2	94	Michigan
7	8	...	...	...	...	7	4	2	1	141	6	2	3	1	98	Wisconsin
2	1	...	...	...	...	4	1	...	...	28	1	...	...	1	153	West North Central
...	2	...	...	...	...	1	2	...	...	18	1	...	...	...	29	Minnesota
4	2	...	...	...	...	2	1	2	1	84	2	...	...	1	20	Iowa
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	86	Missouri
1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	North Dakota
...	3	...	...	...	...	...	...	...	...	4	...	...	...	...	4	South Dakota
3	2	...	1	3	1	3	2	2	5	6	2	3	...	...	13	Nebraska
...	...	...	...	...	...	1	...	...	...	85	5	1	1	7	99	Kansas
2	...	...	1	...	...	1	...	...	...	7	...	...	...	...	7	South Atlantic
...	1	...	...	...	...	1	...	...	2	14	1	1	1	3	7	Delaware
1	1	...	...	3	...	...	2	...	1	2	...	...	...	...	20	Maryland
...	...	...	...	...	1	...	...	2	...	24	1	...	...	2	2	District of Columbia
...	...	...	...	...	...	...	...	...	1	21	2	...	...	1	27	Virginia
...	...	...	...	...	...	...	...	...	1	5	...	...	...	...	24	West Virginia
...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	5	North Carolina
...	...	...	...	...	...	1	...	...	...	9	1	...	...	...	3	South Carolina
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	10	Georgia
...	1	1	...	...	2	1	3	1	3	61	6	3	...	2	1	Florida
...	1	...	...	...	...	1	...	...	...	13	...	3	...	...	72	East South Central
...	...	1	...	...	...	...	...	...	2	30	2	...	...	...	16	Kentucky
...	...	...	...	...	2	...	2	1	1	16	4	...	...	1	32	Tennessee
...	...	...	...	...	...	...	1	...	...	2	...	...	...	1	21	Alabama
...	2	1	...	...	...	...	2	...	2	2	...	...	...	1	3	Mississippi
...	...	...	...	...	...	...	...	...	2	5	...	...	...	...	55	West South Central
...	1	...	...	...	...	...	...	...	...	4	1	1	...	1	5	Arkansas
...	1	1	...	...	...	...	...	...	...	4	...	3	...	...	7	Louisiana
...	...	...	...	...	...	...	2	...	...	4	...	...	...	...	7	Oklahoma
1	...	1	...	...	1	1	...	...	...	14	3	19	...	...	36	Texas
1	...	...	...	...	...	...	...	...	...	9	...	5	...	...	14	Mountain
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	Montana
...	...	1	...	...	...	1	...	...	...	2	...	...	...	...	2	Idaho
...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	4	Wyoming
...	...	...	...	...	1	...	...	...	...	4	...	1	...	...	5	Colorado
...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	New Mexico
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Arizona
...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	Utah
...	3	4	...	...	1	2	2	2	4	83	...	...	7	6	96	Nevada
...	2	...	...	...	...	...	...	1	1	16	...	...	1	...	17	Pacific
...	1	4	...	...	1	2	2	1	3	13	...	...	...	...	13	Washington
...	...	...	...	...	...	...	...	...	...	54	...	...	6	6	66	Oregon
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	California

^aThis analysis covers only plants that report directly to THE CONFERENCE BOARD. In addition, THE CONFERENCE BOARD also receives data from the American Iron and Steel Institute. Includes duplication of 6 plants, each of which appears in the totals for two industries; therefore the net grand total is 2,001.

from 2.8% to 2.2%. The remaining workers, the skilled men, are, of course, the highest paid group, so the increase in the percentage of workers in this classification raised the total average earnings.

No changes of any importance were shown in the data for production workers in shipyards. Employment rose 1.6% in July, the second month in which the number of employed workers was increased. Hourly

EARNINGS AND HOURS, UNSKILLED AND SKILLED AND SEMI-SKILLED MALE PRODUCTION WORKERS, JULY, 1947

NOTE: Hourly earnings are not wage rates, because they include overtime and other monetary compensation

INDUSTRY	Unskilled						Skilled and Semi-Skilled					
	Average Earnings in Dollars				Average Hours per Week per Production Worker		Average Earnings in Dollars				Average Hours per Week per Production Worker	
	Hourly		Weekly		July	June	Hourly		Weekly		July	June
	July	June	July	June			July	June	July	June		
Agricultural implement.....	1.241	1.236	49.28	50.04	39.7	40.5	1.462	1.458	59.07	59.43	40.4	40.8
Automobile ¹	1.316	1.336 _r	48.95	53.81 _r	37.2	40.3	1.560	1.544 _r	56.90	60.36 _r	36.5	39.1 _r
Boot and shoe.....	.648	.652 _r	27.52	27.41 _r	42.4	42.0 _r	1.199	1.205 _r	46.64	47.23 _r	38.9	39.2 _r
Chemical.....	1.223	1.215	47.30	47.97	38.7	39.5	1.536	1.522	58.33	59.24	38.0	38.9
Rayon producing ²	1.037	1.035 _r	39.58	39.70 _r	38.2	38.3 _r	1.306	1.300 _r	51.11	50.66 _r	39.1	39.0 _r
Cotton—North.....	1.086	1.066	45.03	44.86	41.5	42.1	1.188	1.192	50.30	51.70	42.4	43.4
Electrical manufacturing.....	1.224	1.205	49.75	48.30	40.6	40.1	1.523	1.518	62.89	62.94	41.3	41.5
Furniture ³.....	.959	.955	39.59	39.09	41.3	40.9	1.329	1.335	54.84	54.84	41.3	41.1
Hosiery and knit goods.....	.952	1.029	41.90	45.39	44.0	44.1	1.479	1.429	57.72	53.89	39.0	37.7
Iron and steel ⁴	1.246	1.237	42.08	44.36	33.8	35.9	1.614	1.618	58.82	62.51	36.5	38.6
Leather tanning and finishing.....	1.130	1.070	46.29	43.26	41.0	40.4	1.375	1.354	58.41	57.56	42.5	42.5
Lumber and millwork.....	1.091	1.090	46.09	47.14	42.3	43.3	1.603	1.595	67.12	66.52	41.9	41.7
Meat packing.....	1.143	1.125	50.70	50.32	44.3	44.7	1.339	1.312	61.57	58.74	46.0	44.8
Paint and varnish.....	1.126	1.097	47.38	44.57	42.1	40.6	1.378	1.387	55.84	55.78	40.5	40.2
Paper and pulp.....	1.106	1.084	47.15	45.85	42.6	42.3	1.338	1.317	60.70	59.61	45.4	45.3
Paper products.....	1.051	1.033	43.65	43.08	41.5	41.7	1.336	1.321	56.92	57.49	42.6	43.5
Printing—book and job.....	1.110	1.107	49.77	49.48	44.9	44.7	1.867	1.862	80.21	81.29	43.0	43.7
Printing—news and magazine.....	1.207	1.231	44.09	47.74	36.5	38.8	1.988	2.031	78.98	84.78	39.7	41.8
Rubber.....	1.349	1.289	50.18	47.44	37.2	36.8	1.637	1.636	62.23	63.06	38.0	38.5
1. Rubber tires and tubes.....	1.431	1.362	51.80	48.21	36.2	35.4	1.731	1.729	64.54	65.56	37.3	37.9
2. Other rubber products.....	1.046	1.055	43.23	44.65	41.3	42.3	1.433	1.434	56.89	57.27	39.7	39.9
Wool.....	1.117	1.106	46.83	46.12	41.9	41.7	1.343	1.343	55.60	55.60	41.3	41.4
1. Woolen and worsted goods.....	1.154	1.136	47.58	46.44	41.2	40.9	1.326	1.333	54.79	55.12	41.3	41.4
2. Other woolen products ⁵	1.059	1.058	45.62	45.60	43.1	43.1	1.358	1.352	56.13	56.04	41.3	41.5
Foundries and machine shops.....	1.196	1.194	48.02	48.09 _r	40.2	40.3	1.446	1.436	58.33	58.38 _r	40.3	40.7 _r
1. Foundries.....	1.235	1.212	51.04	49.48	41.3	40.8	1.461	1.437	58.32	57.14	39.9	39.8
2. Machines and machine tools.....	1.161	1.146	48.74	47.68	42.0	41.6	1.418	1.402	57.75	57.37	40.7	40.9
3. Heavy equipment.....	1.150	1.198	45.51	48.40 _r	39.6	40.4 _r	1.460	1.458 _r	59.45	60.10 _r	40.7	41.2 _r
4. Hardware and small parts.....	1.165	1.141	47.60	46.68	40.8	40.9	1.416	1.402	57.62	57.35	40.7	40.9
5. Other products.....	1.241	1.233	48.20	48.15	38.9	39.1	1.458	1.453	58.06	58.44	39.8	40.2
24 INDUSTRIES ⁶	1.158	1.153 _r	46.41	47.00 _r	40.2	40.9	1.493	1.487 _r	59.57	60.44	40.0	40.7 _r
Cement.....	1.022	1.036	36.93	39.34	36.1	38.0	1.209	1.180	48.78	47.91	40.4	40.6
Petroleum refining.....	1.229	1.235	50.76	51.15	41.3	41.4	1.651	1.641	66.39	66.10	40.2	40.3
26 INDUSTRIES ⁶	1.158	1.152	46.37	46.98 _r	40.2	40.9	1.493	1.487 _r	59.60	60.44	40.0	40.7
Aircraft.....	1.271	1.177	51.60	47.32	40.6	40.2	1.476	1.446	59.91	57.07	40.6	39.5
Shipbuilding.....	1.133	1.121	42.93	42.41	37.9	37.9	1.501	1.497	59.45	59.97	39.6	40.1

NOTE: The wage data here given are for cash payments only and do not take into consideration the value of such wage equivalents as reduced or free house rents or other special services rendered by the company to employees. Various forms of wage equivalents are in use in industrial establishments in many localities, but the part which they play as compensation for work performed cannot be taken into account in a study of this character.

¹Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.

²Based on data collected by the Textile Economics Bureau, Inc. and THE CONFERENCE BOARD.

³Includes wood, metal, and upholstered household and office furniture.

⁴Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD.

⁵Principally rugs.

⁶Silk and rayon industry not included, as adequate data for unskilled and skilled groups are not available for this industry.

_rRevised.

earnings rose a little and the work week was decreased 0.4 hour.

Hourly earnings rose 0.4% from June to July. They have risen 13.2% since July, 1946, and 129.2% since 1929.

Weekly earnings declined 1.2% from the previous month, but were 12.5% greater than last July. Since 1929, they have been increased 87.7%.

Real weekly earnings dropped 2.1% from June to July, but were 1.9% higher than July, 1946, and 48.5% more than in 1929.

Hours per week were 0.6 hour, or 1.5%, shorter in July than in June. They were 0.8% less than in July

of last year and 17.8% less than the 1929 average.

Employment was cut 1.9% between June and July. Since last July it has risen 5.0% and since 1929, 23.8%.

Man hours were 3.3% less in July than the month before. They were 4.2% greater than July, 1946, and 1.7% more than in 1929.

Payrolls were decreased 3.1% from June to July, but were 18.1% greater than the previous July. Since 1929, they have been increased 132.3%.

ELIZABETH P. ALLISON
Statistical Division

Wage Increase Announcements, August, 1947

Source: Company granting increase unless otherwise specified

	Type of Worker ¹	Increase			Previous Rate or Range		Remarks
		Amount	Date Effective	Number Affected	Rate	Effective	
*Associated Hotel and Restaurant Clubs New York, N. Y.	WE	22% average	4-1	2,000	n.a.	n.a.	Five-day week. (Hotel Front Service Employees Union, AFL)
*Association of Master Painters. New York, N. Y.	WE	\$.30 hr.	n.a.	10,000	\$2.00 hr.	n.a.	Agreement reached July 28, 1947. (Brotherhood of Painters and Decorators, AFL)
*Atlantic & Gulf Ship Operators Association New York, N. Y.	WE	5%	6-16	20,000	n.a.	n.a.	Seven-day vacation after 1 year's service, beginning 7-31-47. Nine paid holidays at sea except when a holiday falls on Sunday, the following Monday will not be regarded as such. (Seafarers Int. Union, AFL)
Balcer Brothers Motor Coach Company Bay City, Mich.	WE	\$.05 hr.	8-1	70	\$1.02 hr.	5-1-46	(UAW-CIO)
*Baldwin Rubber Company. Pontiac, Mich.	WE	\$.06 hr.	n.a.	1,000	n.a.	n.a.	An additional 4¢ per hour will be placed in insurance and retirement fund. Agreement ratified August 3. (UAW-CIO)
Cincinnati Street Railway Company Cincinnati, Ohio	WE	\$.12 hr.	7-1	2,300	n.a.	n.a.	Additional 3¢ per hour effective December 1. (Amalgamated Assn. St., Electric Ry., and Motor Coach Employees of America, AFL)
*Cleaners and dyers. Pittsburgh, Pa.	WE	\$.10 hr.	8-11	1,000	\$.752 average	n.a.	Double time over 12 hours. Three paid holidays. (Cleaners & Dyers Union, AFL)
*Clinton Machine Co. Clinton, Mich.	WE	\$.10 hr.	n.a.	900	\$.95 to \$1.10 hr.	n.a.	Contract includes production plan giving the workers a bonus ranging from 50¢ for each motor over 800 to \$2.00 for each motor over 1,300 produced daily. Agreement ratified 8-17 (UAW-CIO)
*Contractors Employers Group, Inc. Portland, Me.	WE	\$.12½ hr.	10-15	200	\$1.37½ hr.	n.a.	(Raise granted to AFL carpenters by 24 southwestern Main contractors.)
*Dyeing and finishing plants. Rhode Island and Connecticut	WE	\$.05 hr.	8-4	3,000	n.a.	n.a.	New agreement provides for 10¢ increase for maintenance workers, a differential of 5¢ for 3rd shift and improved hospitalization benefits, vacation allowances and overtime pay provisions. Seven plants involved. (Federation of Dyers, CIO)
The Flintkote Company. Meridian, Miss.	WE	\$.06 hr.	7-1	500	\$.72 hr.	7-1-46	(Cement, Lime and Gypsum Workers, AFL)
General Mills, Inc. Buffalo, N. Y.	WE	\$.15 hr.	7-1	1,062	n.a.	7-1-46	Paid holidays will be considered as time worked for computation of overtime. Makes wage increase equivalent to \$.155 per hour. (Flour Mill Workers, AFL) [Press reports indicate that a 15¢ increase was also given to employees of the Pillsbury Flour Mill Company, the International, the Russell Miller and the Standard Milling Companies in Buffalo.]
*Goodyear Tire & Rubber Company. Akron, Ohio	WE	None	n.a.	n.a.	....	....	Six paid holidays. Agreement announced August 18. (United Rubber Workers, CIO)
*Guild Hosiery Conference. New York and Philadelphia	WE	\$.07 to \$.13 hr.	n.a.	2,000	n.a.	n.a.	Announced August 22. Fourteen companies. (American Federation of Hosiery Workers, CIO)
*Gulf Shipbuilding Corporation. Mobile, Ala.	WE	\$.12 hr.	7-28	3,800	n.a.	n.a.	(Mobile Metal Trades Council, AFL) [Press reports indicate that a similar 12¢ increase was given to the Waterman Steamship Corporation, Repair Division].
James Heddon's Sons. Dowagiac, Mich.	WE	\$.06 hr.	6-9	n.a.	n.a.	n.a.	Additional \$.01 per hour increase as wage adjustment on specific jobs. Additional \$.05 per hour increase, retroactive to 6-9, provided the 1941 standard of production is reached within six months. (UAW-CIO)
*Illinois Coal Operators Association. Chicago, Ill.	WE	\$1.96 day	7-1	17,000	\$11.09 day	n.a.	New agreement provides for the increase of the producers' contribution to the welfare and retirement fund from 5¢ to 10¢ per ton. (Progressive Mine Workers, Ind.)
Jefferson Island Salt Company. Jefferson Island, La.	WE S	\$.05 hr. \$.90 wk.	8-1 9-1	300 30	\$.69 hr. n.a.	2-1-47 n.a.	1 week's vacation after 2 years' service; 2 weeks after 5 years' service. (Int. Chemical Workers, AFL) (No union for salaried employees.)
*Lewin Metals Corporation. St. Louis, Mo.	WE	\$.13 hr.	n.a.	800	\$.93½ to \$1.33 hr.	n.a.	Time-and-one-half for Sundays. Six paid holidays. Twenty-minute paid lunch period. Ratified 8-14. (Progressive Metal Workers Council, CIO)
*Lumber companies. Grays Harbor and Olympia, Wash	WE	\$.60 day	4-1	n.a.	\$12.16 day	n.a.	(Tacoma Boommen's and Rafters Union of the Int. Woodworkers of America, CIO)
The Maryland Drydock Company. Baltimore, Maryland	WE WE S S	\$.18 hr. \$.12 hr. \$31.50 mo. \$37.50 mo.	7-31 8-19 7-28	380 4,320 250	n.a. n.a. n.a.	n.a. n.a. n.a.	Supervisory employees. (Independent union.) Nonsupervisory employees. (IUMSWA, CIO) Employees covered by wage-hour law. Employees exempt from wage-hour law. (No union for salaried employees.) Three weeks' vacation for all employees with 20 years' service.

WAGE INCREASE ANNOUNCEMENTS, AUGUST, 1947—Continued

	Type of Worker ¹	Increase			Previous Rate of Range		Remarks
		Amount	Date Effective	Number Affected	Rate	Effective	
McDonnell Aircraft Corporation.... St. Louis, Mo.	WE	\$1.12 hr.	7-7	2,800	\$1.30 hr. average	4-22-46	(Int. Assn. Machinists, Ind.)
	S	\$5.50 wk.	7-7	400	\$91.70 wk. average	2-11-46	(No union)
The Murray Corporation of America.. Detroit, Mich.	WE	\$1.15 hr.	5-1	7,000	n.a.	n.a.	(UAW-CIO)
	S	10%	5-1	1,500	n.a.	n.a.	(No union)
*Nashua Manufacturing Company... Nashua, N. H.	WE	\$0.05 hr.	8-5	4,000	n.a.	n.a.	Increase affects Nashua and Jackson mills. (Textile Workers' Union, CIO)
*National Assn. of Manufacturers of Pressed and Blown Glassware	WE	\$0.08 to \$0.10 hr.	8-17	8,000	n.a.	n.a.	(American Flint Glass Workers' Union, AFL)
New Bedford Cotton Manufacturers' Assn. New Bedford, Mass.	WE	\$0.05 hr.	8-4	12,000	\$0.83 hr. min.	1-6-47	Five holidays with pay. Vacations as follows: 1 year's service, 2% of gross pay for past year; 3 years' service, 3% of gross pay for previous year; 5 years and over, 4% of gross pay for pre- vious year. (Textile Workers Union, CIO) [Press reports indicate that a similar increase was given to textile workers in the Fall River area.]
Parke, Davis & Company..... Detroit, Mich.	WE	\$1.15 hr.	5-1	2,800	n.a.	n.a.	(United Chemical Workers, CIO)
	S	10%	6-9	1,200	n.a.	n.a.	(No union)
Pennsylvania-Central Airlines Cor- poration Washington, D. C.	WE	\$1.14 hr.	6-1	950	n.a.	n.a.	A 7th paid holiday. 5¢ and 9¢ per hour shift differential. Sick pay but first day not paid for. (Int. Assn. Machinists)
Pepperell Manufacturing Company... Biddeford and Lewiston, Me., Fall River, Mass.	WE	\$0.05 hr.	8-1	4,500	See remarks	1-47	Paid holidays and insurance benefits, equivalent to 3¢ per hour, were also granted. Previous in- crease: 10¢ per hour. (Textile Workers Union of America, CIO)
Pratt, Read & Company..... Ivoryton, Conn.	WE	\$0.05 hr.	8-25	730	\$0.75 to \$1.50 hr.	9-43	Also, six paid holidays, two weeks' vacation with pay after five years, and more liberal medical and insurance plans. (United Furniture Workers of America, CIO) (No union for salaried employees)
	S	\$2.00 to \$15.00 wk.	8-25	100	\$2,500 to \$8,000 yr.	n.a.	
Public Service Coordinated Transport, and Public Service Interstate Trans- portation Company Newark, N. J.	WE	\$1.16½ hr.	7-1	6,500	\$1.13½ hr.	7-1-46	Also 2 weeks' vacation after 3 years' service; 6 holidays for nonoperators; Thanksgiving and Christmas for operators; 8 hours' straight pay for holidays not worked and time-and-one-half if worked. (Amal. Assn. St., Electric Ry., and Motor Coach Employees, AFL)
*Saco-Lowell Textile Machinery Com- pany Biddeford, Me.	WE	\$0.05 hr.	n.a.	3,000	n.a.	n.a.	Also additional hospitalization, sickness and vacation benefits. Agreement announced Aug- ust 3. (Textile Workers' Union, CIO)
Sinclair Oil Corporation..... New York, N. Y.	WE	See remarks	7-1	9,000	n.a.	n.a.	15¢ increase in basic hourly rates, plus 10¢ per hour "cost of living adjustment" for a period of one year. (Oil Workers Int. Union, CIO)
	S	See remarks	7-1	8,000	n.a.	n.a.	Approximately 17% of the basic salaried payroll was distributed on a sliding scale basis to all employees receiving not in excess of \$15,000. (No union)
*Todd-Johnson Dry Docks, Inc..... New Orleans, La.	WE	\$1.12 hr.	n.a.	1,000	n.a.	n.a.	Agreement reached July 23. (Union not given.)
*Todd Shipyards Corporation..... Brooklyn, N. Y., Hoboken, N. J. and New Orleans, La.	WE	\$1.12 hr.	n.a.	24,000	\$1.38 hr.	n.a.	Also improved vacations and working conditions. Contract signed July 28. (Industrial Union of Marine and Shipbuilding Workers, CIO)
The United Piece Dye Works..... Lodi, N. J.	WE	\$0.05 hr.	9-1	1,000	See remarks	8-46	Previous rates: 1st shift, \$1.13; 2nd shift, \$1.18; 3rd shift, \$1.23. (Federation of Textile Dyers & Printers, CIO)
United States Envelope Company.... Springfield, Mass.	WE	\$1.10 hr.	8-4	2,500	n.a.	n.a.	Six paid holidays. 1 week's vacation for 1 year's service; 2 weeks' vacation for 3 years' service. 5% bonus based on profits when sufficient. (AFL union in 3 plants, CIO union in 2 plants, no union in 7 plants.) (No union for salaried employees)
	S	\$1.10 hr.	8-4	600	n.a.	n.a.	
The United States Time Corporation. Waterbury and Middlebury, Conn.	WE	See remarks	See remarks	2,300	n.a.	n.a.	5¢ per hour, effective 5-10-47, additional 1¢ effective 8-2-47, additional 2¢ effective 1-3-48. Wage earners will receive 3 paid holidays in 1947, effective 9-1, and 6 paid holidays beginning 1-1-48. (Waterbury Watchworkers' Union) (No union for salaried employees)
	S	See remarks	See remarks	225	n.a.	n.a.	
*Western Pennsylvania Motor Car- riers Association Pittsburgh, Pa.	WE	\$1.17½ hr.	n.a.	2,500	\$1.15 hr. maximum	n.a.	General transport drivers. Agreement approved 8-1. (Teamsters Union, AFL)
	WE	\$0.20 hr.	n.a.	450	n.a.	n.a.	Household movers. Settlement reached 8-13. (Teamsters Union, AFL)
Western Union Telegraph Company (Cable Division) New York, N. Y.	WE	\$1.10 hr.	7-1	380	\$1.56 hr.	n.a.	(American Communications Association, CIO)
*Yellow Cab Company..... Pittsburgh, Pa.	WE	\$8.00 to \$10.00 wk.	2-7	900	n.a.	n.a.	(Taxi Drivers Union, AFL)

¹Type of worker: S—salaried employees; WE—wage earners.

*Obtained from press reports. Information not verified by company.

n.a.—Not available